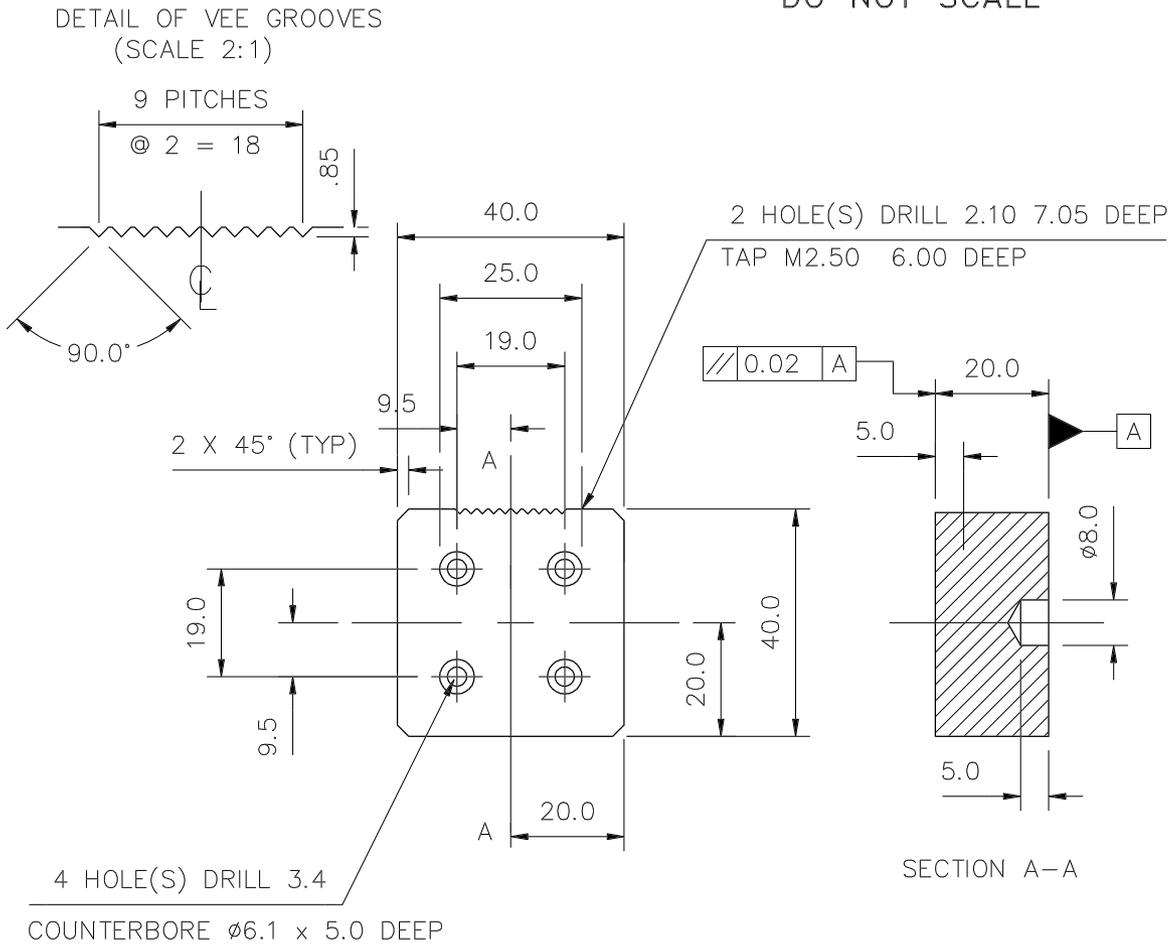
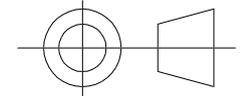
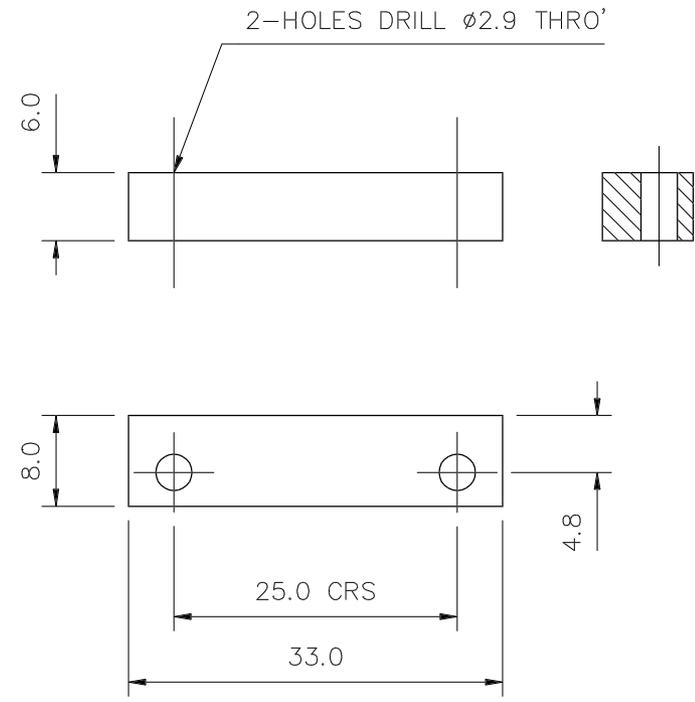


DO NOT SCALE

THIRD ANGLE PROJECTION



DETAIL OF WORKPIECE BLOCK



DETAIL OF CLAMP

(SCALE 2:1)

| | | | |
|-------|----------|-----|------|
| ISSUE | REVISION | DRN | DATE |
| | | | |
| | | | |
| | | | |

ALL DIMENSIONS IN MM UNLESS OTHERWISE STATED

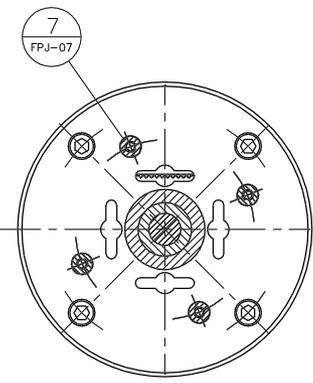
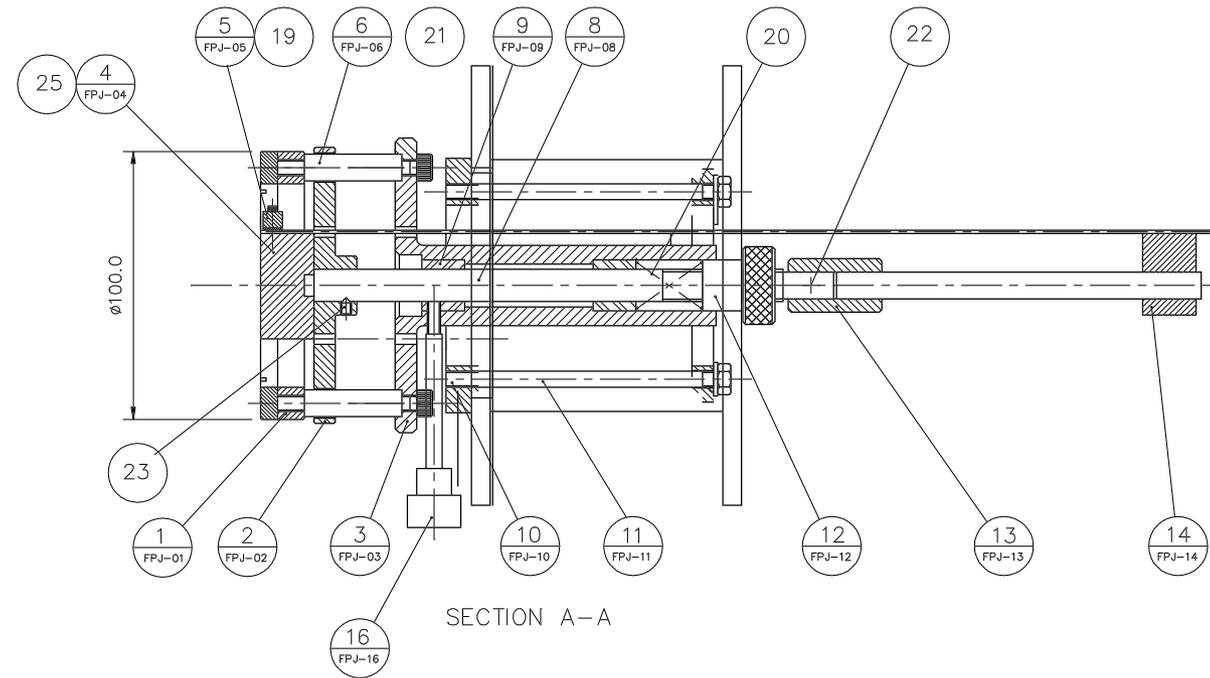
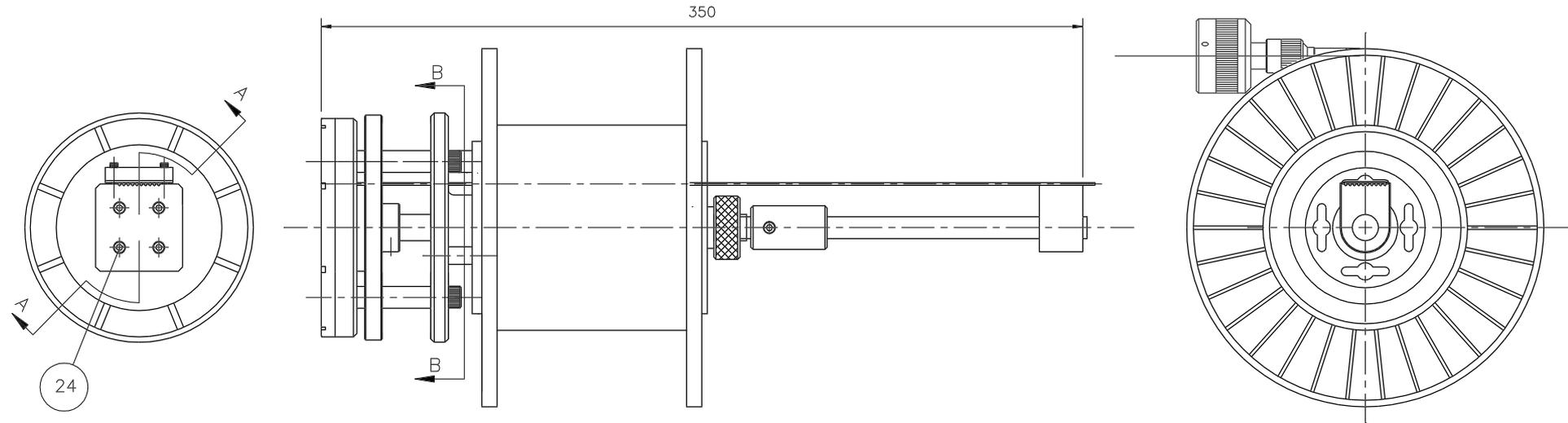
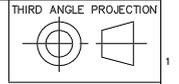
IMPLIED TOLERANCES
 X (OVER 100) ±0.20
 X (UP TO 100) ±0.1
 X.X ±0.10
 X.XX ±0.05

Material:
BRASS

Quantity: 1 OFF

| | | | |
|---|---------------------------------------|--|------------------------|
| DRG. TITLE: WORKPIECE BLOCK & CLAMP | | ASTRONOMICAL INSTRUMENTATION GROUP DURHAM UNIVERSITY, PHYSICS DEPARTMENT SCIENCE LABS, SOUTH ROAD, DURHAM, DH1 3LE TEL. (091) 374 2107 & 2108 | DRG. SIZE A3 |
| SCALES: 1:1 & 2:1 | DRG. TYPE: PARTS | | |
| DRAWN BY: G.D | | THIS DRAWING IS THE PROPERTY OF THE ASTRONOMICAL INSTRUMENTATION GROUP, DURHAM UNIVERSITY, PHYSICS DEPT. IT MUST NOT BE COPIED OR LENT WITHOUT THE CONSENT OF THE INSTRUMENTATION GROUP. | REV. A |
| DATE 30/04/92 | DRAWING No. FPJ-04 & 05 | | |

DO NOT SCALE



SECTION B-B

SECTION A-A

| | | | |
|---|--|--|--|
| DRG. TITLE: | | ASSEMBLY OF FIBRE POLISHING JIG | |
| SCALES: | | 1:1 | |
| DRG. TYPE: | | ASSEMBLY | |
| DRAWN BY: | | G.D | |
| DATE: | | 24/04/92 | |
| MATERIAL: | | Quantity: 1 OFF | |
| ASTRONOMICAL INSTRUMENTATION GROUP DURHAM UNIVERSITY, PHYSICS DEPARTMENT SCIENCE LABS, SOUTH ROAD, DURHAM, DH1 1TA TEL: (0191) 574 5107 & 5108 | | <small>THIS DRAWING IS THE PROPERTY OF THE ASTRONOMICAL INSTRUMENTATION GROUP, DURHAM UNIVERSITY, PHYSICS DEPT. IT MUST NOT BE COPIED OR LENT WITHOUT THE CONSENT OF THE INSTRUMENTATION GROUP.</small> DRG. NO. FPJ-GA REV. A | |

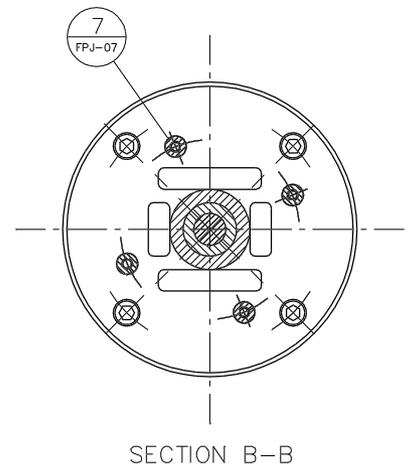
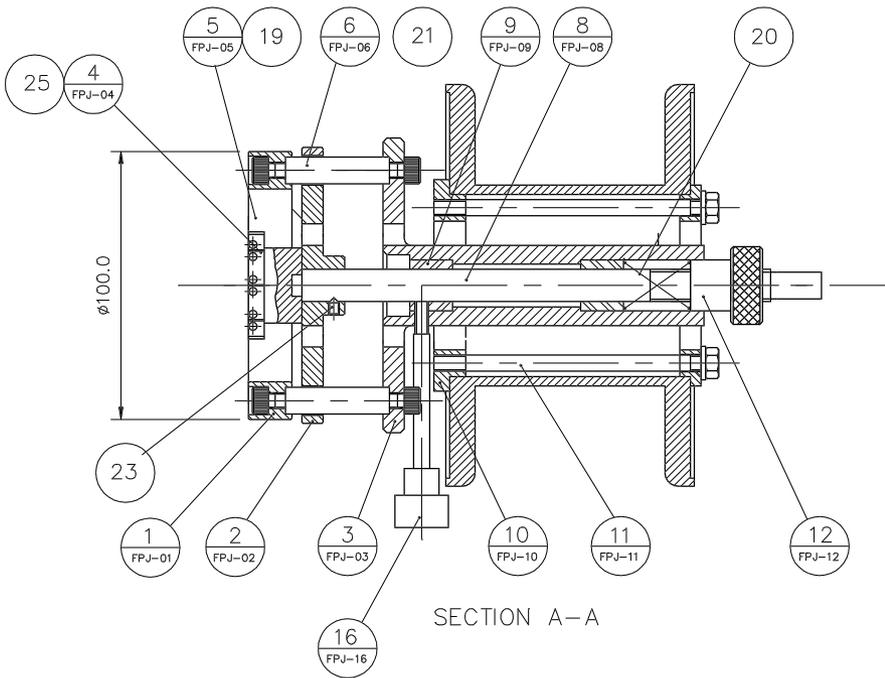
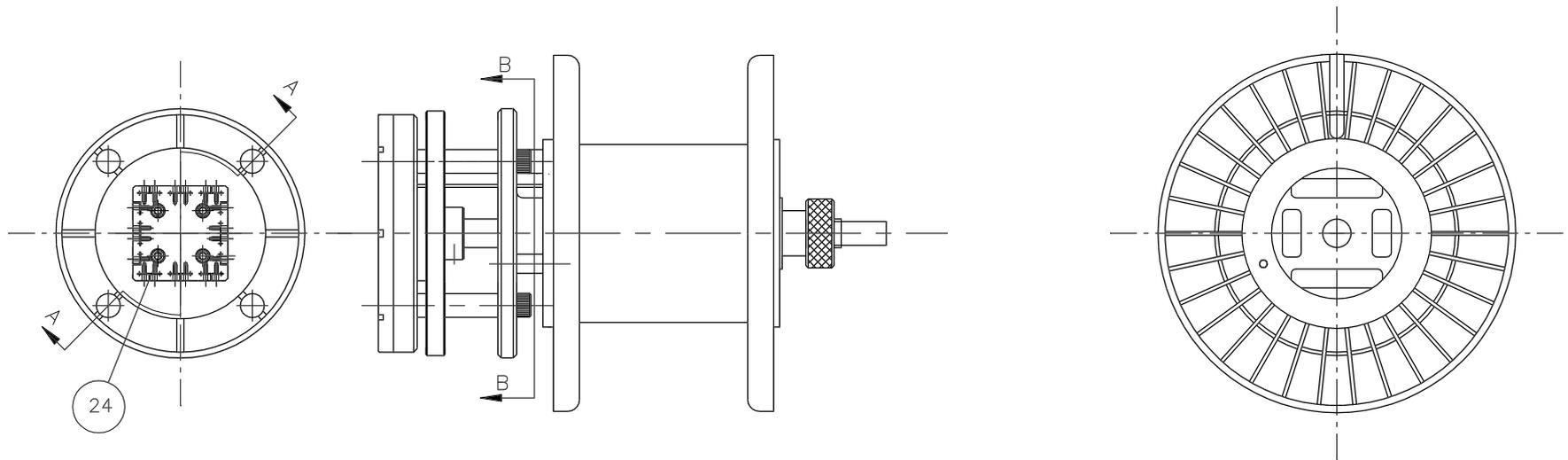
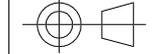
| ISSUE | REVISION | GRID | DRN | DATE | ISSUE | REVISION | GRID | DRN | DATE |
|-------|----------|------|-----|------|-------|----------|------|-----|------|
| | | | | | | | | | |
| | | | | | | | | | |

ALL DIMENSIONS IN MM UNLESS OTHERWISE STATED

IMPLIED TOLERANCES
 X (OVER 100) ±0.20
 X (UP TO 100) ±0.1
 X.X ±0.10
 X.XX ±0.05

DO NOT SCALE

THIRD ANGLE PROJECTION



| | | | |
|---|--|--|--|
| DRG. TITLE: | | ASSEMBLY OF FIBRE POLISHING JIG | |
| SCALES: | | 1:1 | |
| DRG. TYPE: | | ASSEMBLY | |
| DRAWN BY: | | G.D | |
| DATE: | | 3/11/93 | |
| ASTRONOMICAL INSTRUMENTATION GROUP DURHAM UNIVERSITY, PHYSICS DEPARTMENT SCIENCE LABS, SOUTH ROAD, DURHAM, DH1 1TA TEL: (0191) 574 3107 & 3108 | | DRG. SIZE THIS DRAWING IS THE PROPERTY OF THE ASTRONOMICAL INSTRUMENTATION GROUP, DURHAM UNIVERSITY, PHYSICS DEPT. IT MUST NOT BE COPIED OR LENT WITHOUT THE CONSENT OF THE INSTRUMENTATION GROUP. DRAWING No. 2DF \ FPJ-GA | |
| Quantity: 1 OFF | | REV. A | |

| ISSUE | REVISION | GRID | DRN | DATE | ISSUE | REVISION | GRID | DRN | DATE |
|-------|----------|------|-----|------|-------|----------|------|-----|------|
| | | | | | | | | | |

ALL DIMENSIONS IN MM UNLESS OTHERWISE STATED

IMPLIED TOLERANCES

X (OVER 100) ± 0.20

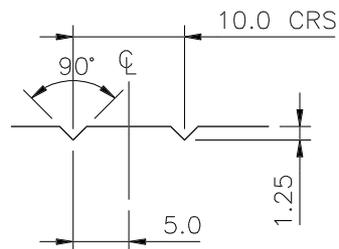
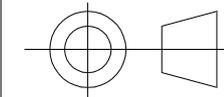
X (UP TO 100) ± 0.1

X.X ± 0.10

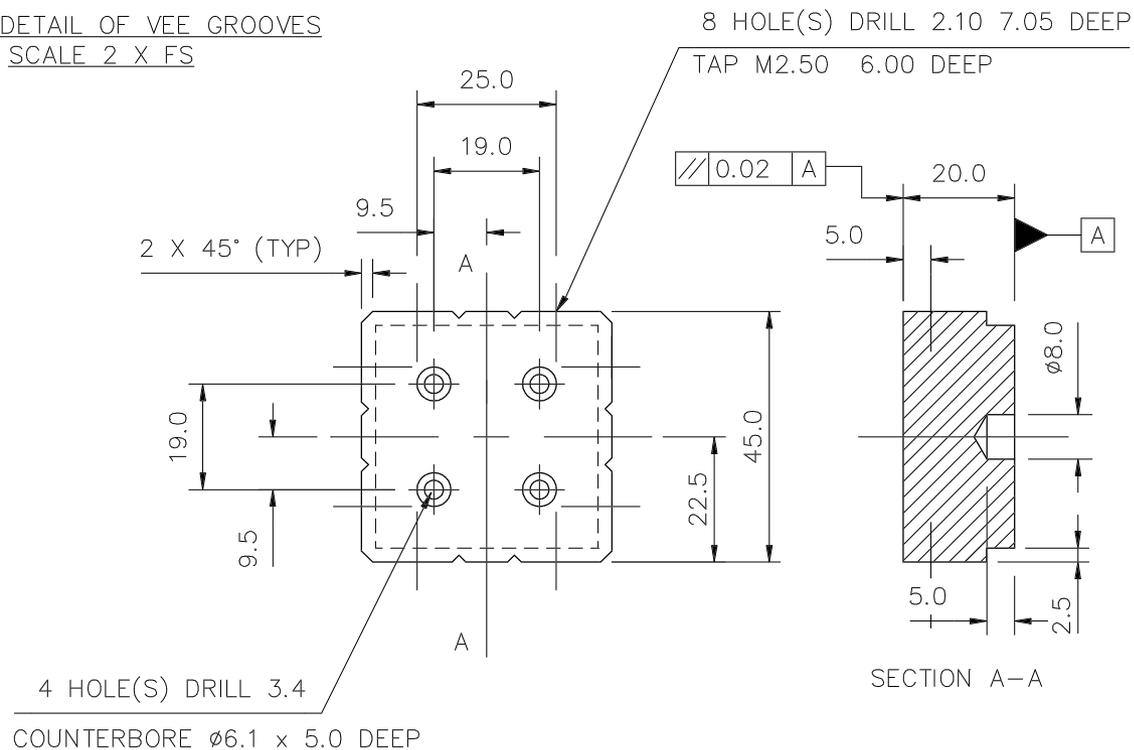
X.XX ± 0.05

DO NOT SCALE

THIRD ANGLE PROJECTION



DETAIL OF VEE GROOVES
SCALE 2 X FS



SECTION A-A

DETAIL OF WORKPIECE BLOCK

| | | | |
|--|--|------------------------------------|--|
| DRG. TITLE: | | WORKPIECE BLOCK - SMIRFS FIBRES | |
| SCALES: | | 1:1 & 2:1 | |
| DRG. TYPE: | | PARTS | |
| DRAWN BY: | | G.D | |
| DATE: | | 6/6/94 | |
| ASTRONOMICAL INSTRUMENTATION GROUP DURHAM UNIVERSITY, PHYSICS DEPARTMENT SCIENCE LABS, SOUTH ROAD, DURHAM, DH1 3LE TEL. (091) 374 2107 & 2108 | | DRG. SIZE A3 | |
| THIS DRAWING IS THE PROPERTY OF THE ASTRONOMICAL INSTRUMENTATION GROUP, DURHAM UNIVERSITY, PHYSICS DEPT IT MUST NOT BE COPIED OR LENT WITHOUT THE CONSENT OF THE INSTRUMENTATION GROUP | | DRAWING No. FPJ-20 | |
| REV. | | A | |

ALL DIMENSIONS IN MM UNLESS OTHERWISE STATED

IMPLIED TOLERANCES
X (OVER 100) ±0.20
X (UP TO 100) ±0.1
X.X ±0.10
X.XX ±0.05

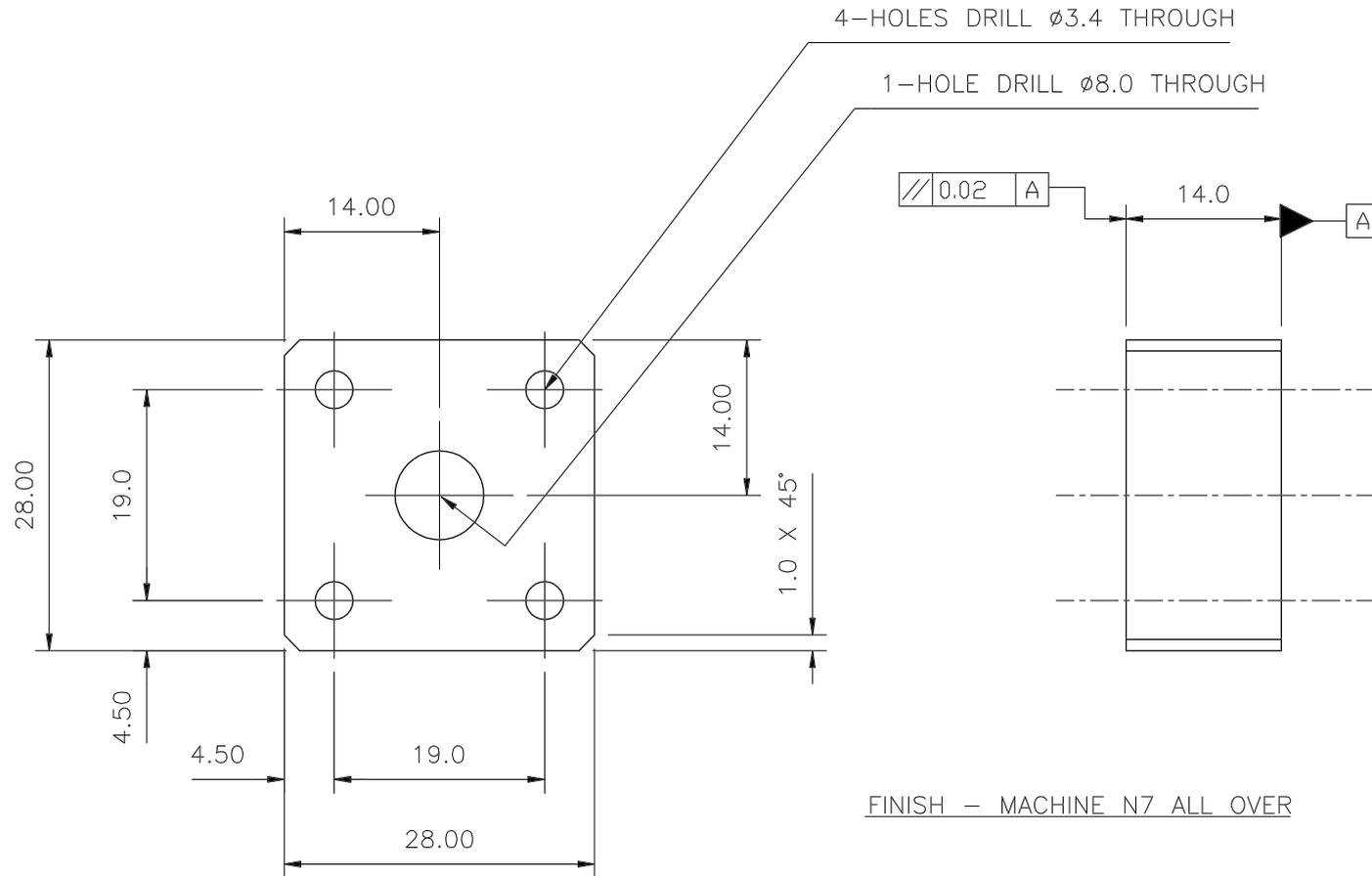
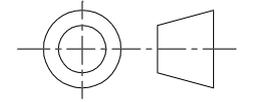
Material:
BRASS

Quantity: 1 OFF

| ISSUE | REVISION | DRN | DATE |
|-------|----------|-----|------|
| | | | |
| | | | |
| | | | |

DO NOT SCALE

THIRD ANGLE PROJECTION



FINISH - MACHINE N7 ALL OVER

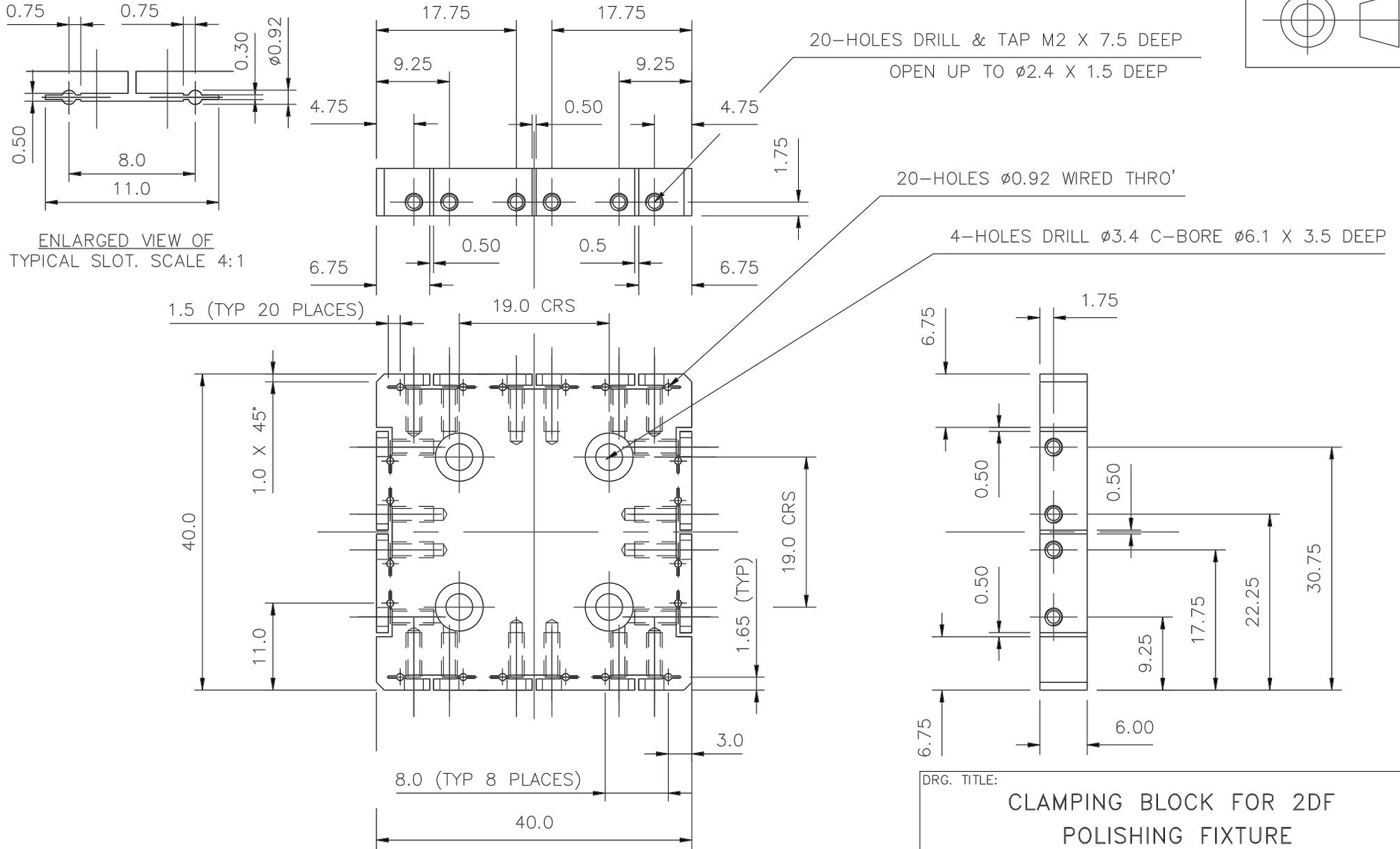
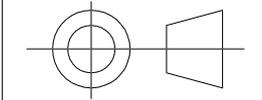
| | | | |
|-------------|--|-----------------------------------|---|
| DRG. TITLE: | | SPACER BLOCK FOR POLISHING JIG | |
| SCALES: | | 2:1 | ASTRONOMICAL INSTRUMENTATION GROUP DURHAM UNIVERSITY, PHYSICS DEPARTMENT SCIENCE LABS, SOUTH ROAD, DURHAM, DH1 3LE TEL. (091) 374 2107 & 2108 |
| DRG. TYPE: | | PARTS | THIS DRAWING IS THE PROPERTY OF THE ASTRONOMICAL INSTRUMENTATION GROUP, DURHAM UNIVERSITY, PHYSICS DEPT. IT MUST NOT BE COPIED OR LENT WITHOUT THE CONSENT OF THE INSTRUMENTATION GROUP |
| DRAWN BY: | | G.D | |
| DATE | | 4/11/93 | DRG. SIZE A3 |
| | | 2DF\FPJ-19 | REV. A |

| | | | |
|--|----------|-----|------|
| ALL DIMENSIONS IN MM UNLESS OTHERWISE STATED | | | |
| IMPLIED TOLERANCES | | | |
| X (OVER 100) ±0.20 | | | |
| X (UP TO 100) ±0.1 | | | |
| X.X ±0.10 | | | |
| X.XX ±0.05 | | | |
| ISSUE | REVISION | DRN | DATE |

Material:
ST STEEL
Quantity: 1 OFF

DO NOT SCALE

THIRD ANGLE PROJECTION



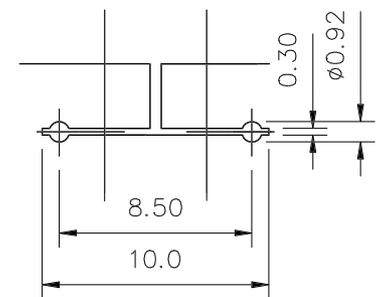
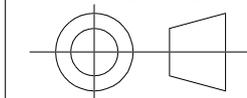
| | | | |
|---|--|---|--|
| DRG. TITLE: | | CLAMPING BLOCK FOR 2DF POLISHING FIXTURE | |
| SCALES: | | 2:1 & 4:1 | |
| DRG. TYPE: | | PARTS | |
| DRAWN BY: | | G.D | |
| DATE: | | 12/01/94 | |
| ASTRONOMICAL INSTRUMENTATION GROUP DURHAM UNIVERSITY, PHYSICS DEPARTMENT SCIENCE LABS, SOUTH ROAD, DURHAM, DHI 3LE TEL. (091) 374 2107 & 2108 | | DRG. SIZE A3 | |
| THIS DRAWING IS THE PROPERTY OF THE ASTRONOMICAL INSTRUMENTATION GROUP, DURHAM UNIVERSITY, PHYSICS DEPT. IT MUST NOT BE COPIED OR LENT WITHOUT THE CONSENT OF THE INSTRUMENTATION GROUP | | DRAWING No. | |
| Quantity: 1 OFF | | 2DF\FPJ-18B | |
| ISSUE | | REV. A | |

| | | | |
|-------|----------|-----|------|
| ISSUE | REVISION | DRN | DATE |
|-------|----------|-----|------|

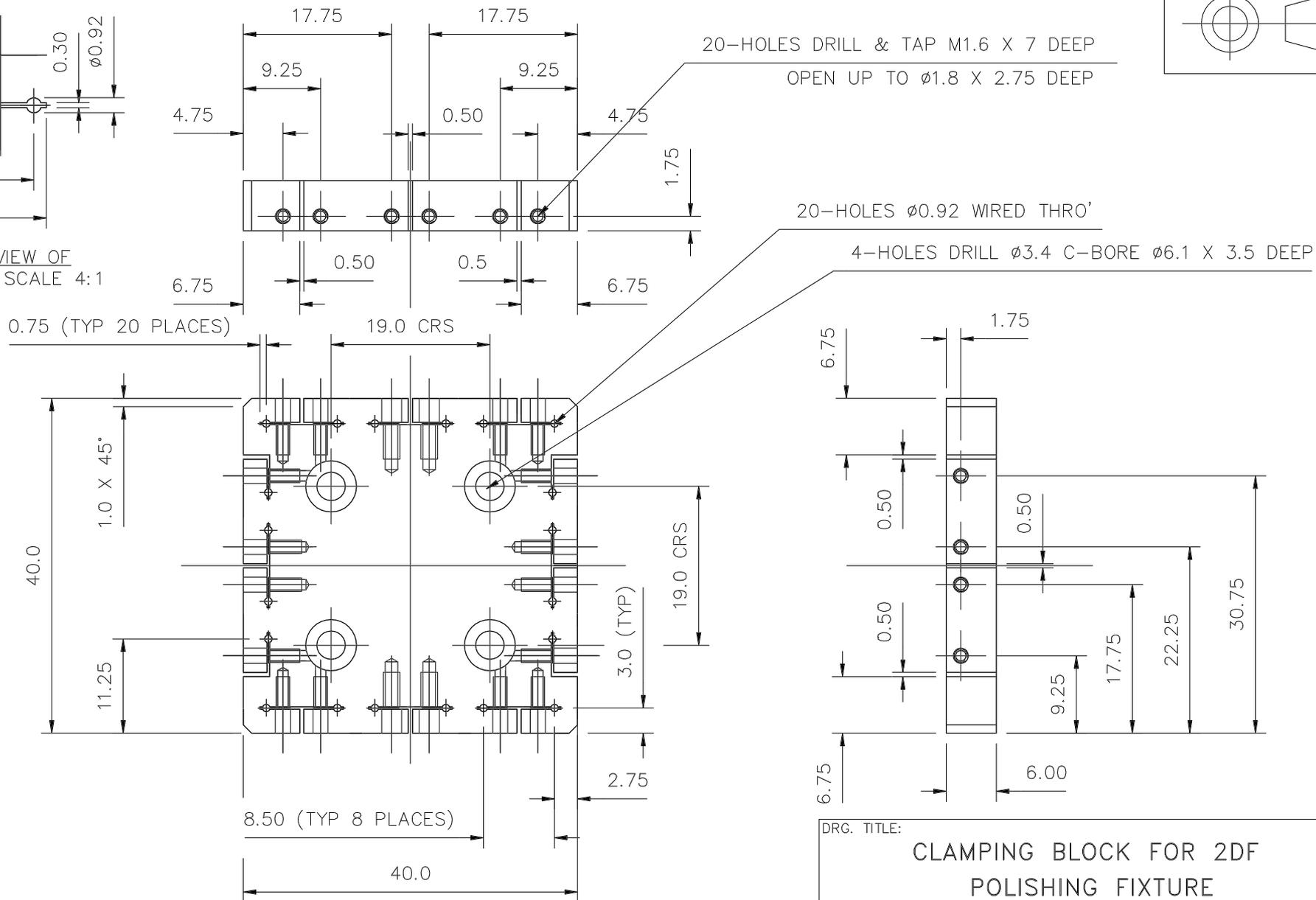
| | |
|--|-----------------|
| ALL DIMENSIONS IN MM UNLESS OTHERWISE STATED | |
| IMPLIED TOLERANCES | Material: |
| X (OVER 100) ± 0.20 | PH BRONZE |
| X (UP TO 100) ± 0.1 | Quantity: 1 OFF |
| X.X ± 0.10 | |
| X.XX ± 0.05 | |

DO NOT SCALE

THIRD ANGLE PROJECTION



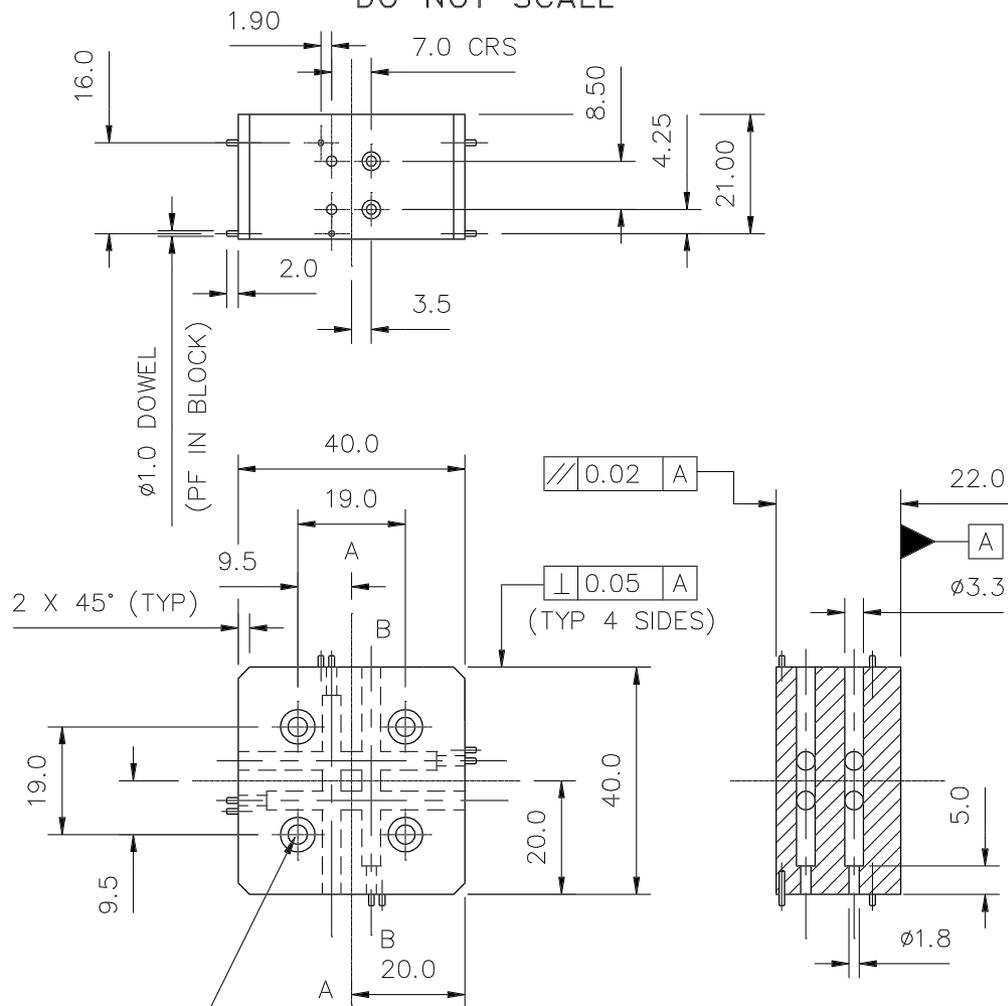
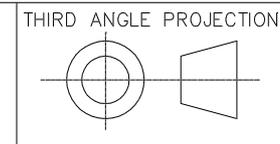
ENLARGED VIEW OF TYPICAL SLOT. SCALE 4:1



| | | | |
|---|--|---|--|
| DRG. TITLE: | | CLAMPING BLOCK FOR 2DF POLISHING FIXTURE | |
| SCALES: | | 2:1 & 4:1 | |
| DRG. TYPE: | | PARTS | |
| DRAWN BY: | | G.D | |
| DATE: | | 1/11/93 | |
| ASTRONOMICAL INSTRUMENTATION GROUP DURHAM UNIVERSITY, PHYSICS DEPARTMENT SCIENCE LABS, SOUTH ROAD, DURHAM, DHI 3LE TEL. (091) 374 2107 & 2108 | | DRG. SIZE A3 | |
| THIS DRAWING IS THE PROPERTY OF THE ASTRONOMICAL INSTRUMENTATION GROUP, DURHAM UNIVERSITY, PHYSICS DEPT. IT MUST NOT BE COPIED OR LENT WITHOUT THE CONSENT OF THE INSTRUMENTATION GROUP | | DRAWING No. 2DF\FPJ-18 | |
| ISSUE | | REV. A | |

| | | | |
|--|----------|-----------------|------|
| ALL DIMENSIONS IN MM UNLESS OTHERWISE STATED | | | |
| IMPLIED TOLERANCES | | | |
| X (OVER 100) ± 0.20 | | | |
| X (UP TO 100) ± 0.1 | | | |
| X.X ± 0.10 | | | |
| X.XX ± 0.05 | | | |
| Material: | | ST STEEL | |
| Quantity: | | 1 OFF | |
| ISSUE | REVISION | DRN | DATE |

DO NOT SCALE



4 HOLE(S) DRILL 3.4
COUNTERBORE $\phi 6.1 \times 5.0$ DEEP

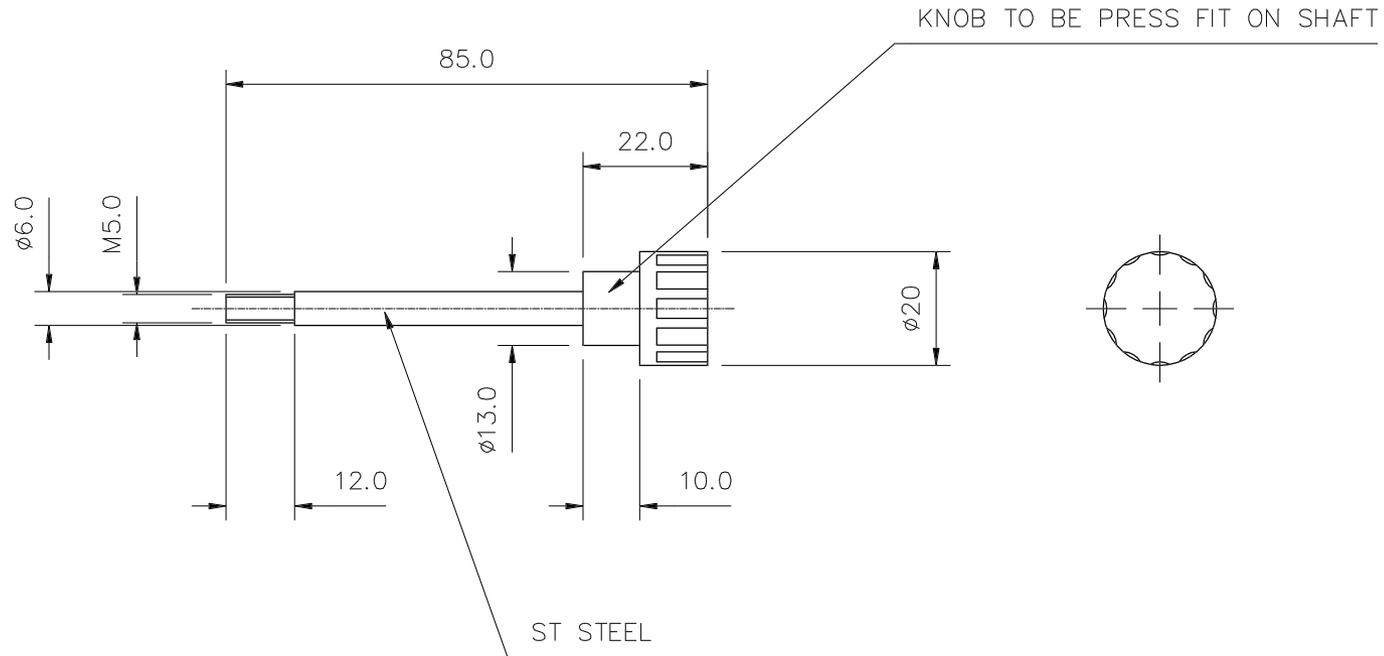
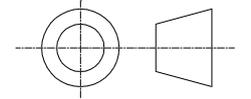
| | | | |
|-------------|--|---|---|
| DRG. TITLE: | | CLAMP BLOCK -2DF SLITLET BLOCK E3145 | |
| SCALES: | | 1:1 | ASTRONOMICAL INSTRUMENTATION GROUP DURHAM UNIVERSITY, PHYSICS DEPARTMENT SCIENCE LABS, SOUTH ROAD, DURHAM, DH1 3LE TEL. (091) 374 2107 & 2108 |
| DRG. TYPE: | | PARTS | THIS DRAWING IS THE PROPERTY OF THE ASTRONOMICAL INSTRUMENTATION GROUP, DURHAM UNIVERSITY, PHYSICS DEPT. IT MUST NOT BE COPIED OR LENT WITHOUT THE CONSENT OF THE INSTRUMENTATION GROUP |
| DRAWN BY: | | G.D | |
| DATE: | | 16/11/93 | DRAWING No. 2DF \ FPJ-17 |
| DRG. SIZE: | | A3 | REV. A |

| | | | |
|--|----------|--------------|------|
| ALL DIMENSIONS IN MM UNLESS OTHERWISE STATED | | | |
| IMPLIED TOLERANCES | | Material: | |
| X (OVER 100) ± 0.20 | | BRASS | |
| X (UP TO 100) ± 0.1 | | | |
| X.X ± 0.10 | | | |
| X.XX ± 0.05 | | | |
| ISSUE | REVISION | DRN | DATE |
| | | | |
| | | | |
| | | | |
| | | | |

Quantity: 1 OFF

DO NOT SCALE

THIRD ANGLE PROJECTION



| | | | |
|-------------|----------|---|-----------|
| DRG. TITLE: | | CLAMPING SCREW | |
| SCALES: | 1:1 | ASTRONOMICAL INSTRUMENTATION GROUP DURHAM UNIVERSITY, PHYSICS DEPARTMENT SCIENCE LABS, SOUTH ROAD, DURHAM, DH1 3LE TEL. (091) 374 2107 & 2108 | |
| DRG. TYPE: | PARTS | THIS DRAWING IS THE PROPERTY OF THE ASTRONOMICAL INSTRUMENTATION GROUP, DURHAM UNIVERSITY, PHYSICS DEPT. IT MUST NOT BE COPIED OR LENT WITHOUT THE CONSENT OF THE INSTRUMENTATION GROUP | DRG. SIZE |
| DRAWN BY: | G.D | | A3 |
| DATE | 29/06/92 | DRAWING No. | REV. |
| | | FPJ-16 | A |

ALL DIMENSIONS IN MM UNLESS OTHERWISE STATED

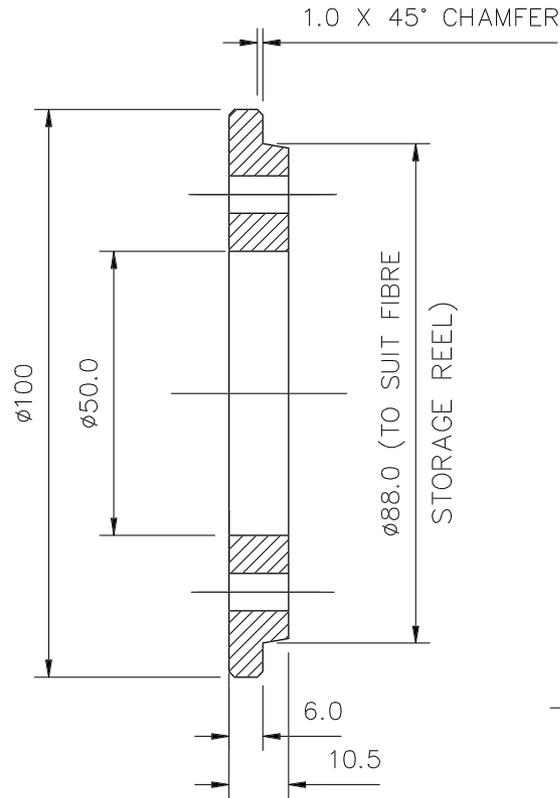
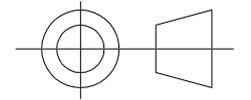
IMPLIED TOLERANCES
 X (OVER 100) ±0.20
 X (UP TO 100) ±0.1
 X.X ±0.10
 X.XX ±0.05

Material:
AL & ST STEEL
 Quantity: 1 OFF

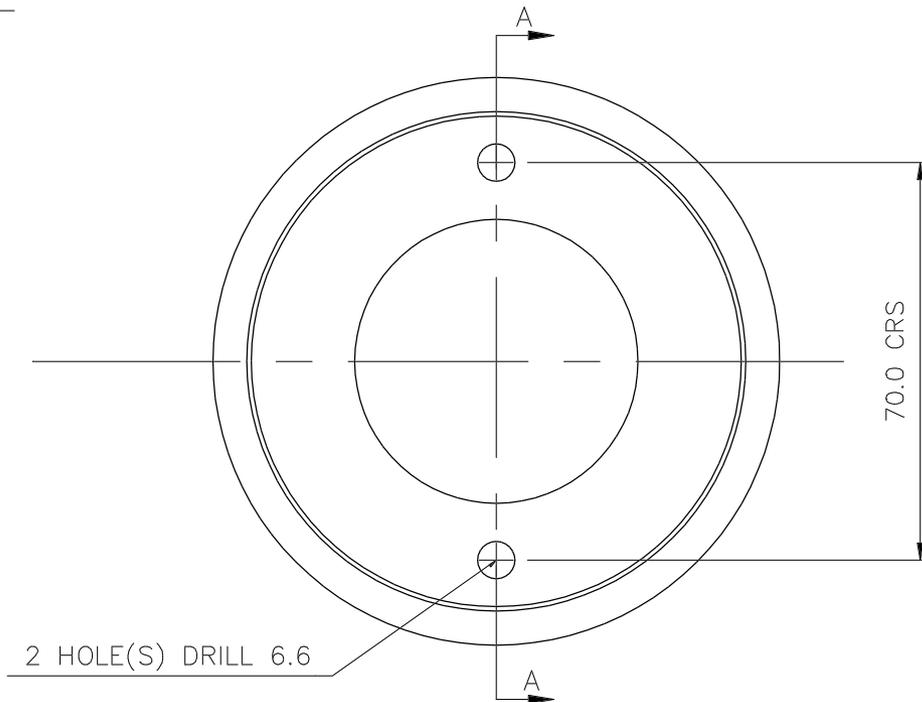
| ISSUE | REVISION | DRN | DATE |
|-------|----------|-----|------|
| | | | |
| | | | |
| | | | |

DO NOT SCALE

THIRD ANGLE PROJECTION



SECTION A-A



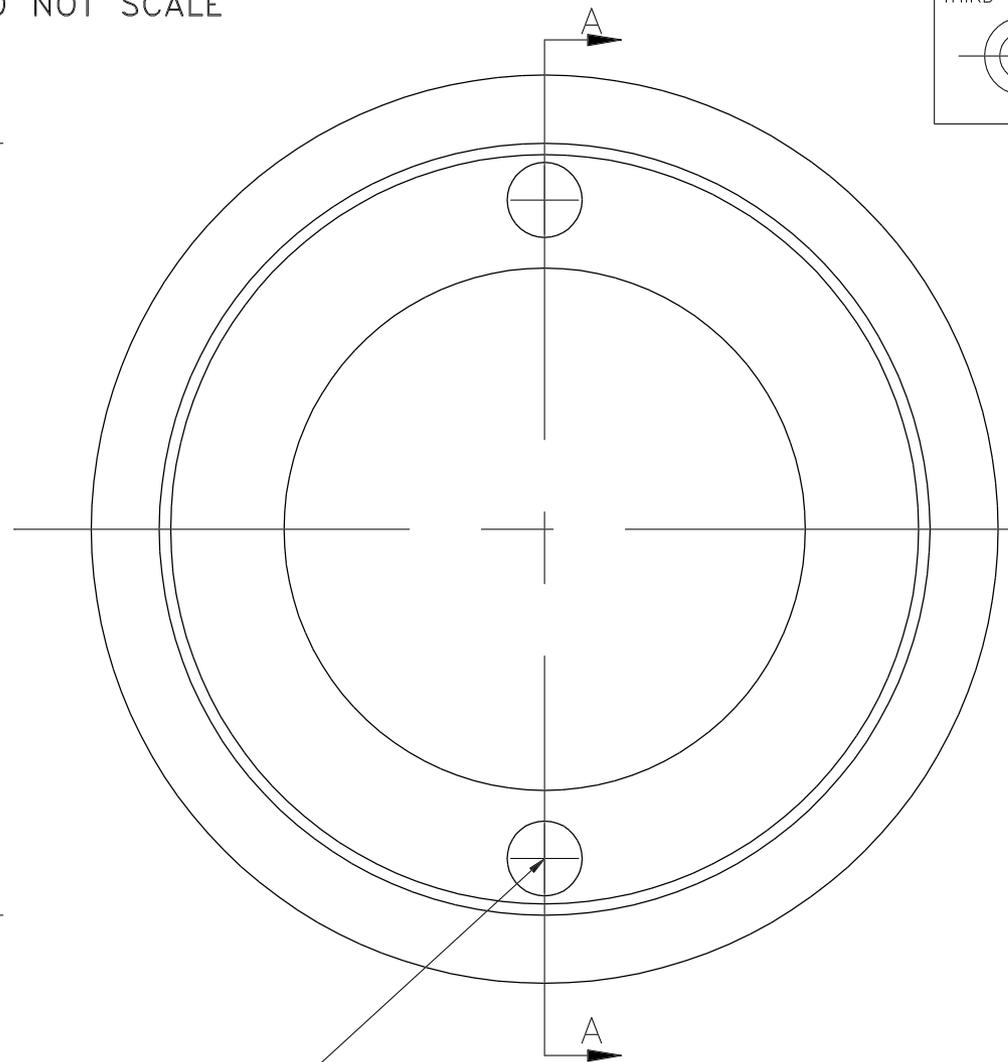
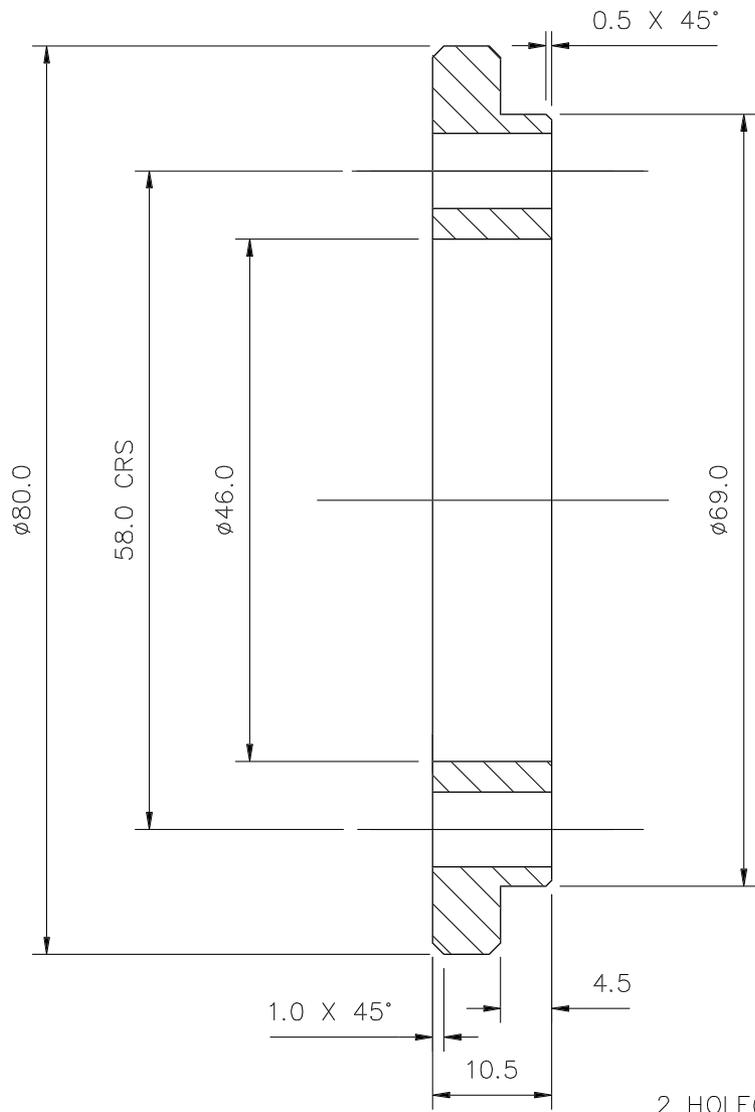
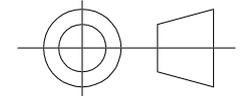
| | | | |
|-------------|--|--------------------|---|
| DRG. TITLE: | | CLAMP PLATE | |
| SCALES: | | 1:1 | ASTRONOMICAL INSTRUMENTATION GROUP DURHAM UNIVERSITY, PHYSICS DEPARTMENT SCIENCE LABS, SOUTH ROAD, DURHAM, DH1 3LE TEL. (091) 374 2107 & 2108 |
| DRG. TYPE: | | PARTS | THIS DRAWING IS THE PROPERTY OF THE ASTRONOMICAL INSTRUMENTATION GROUP, DURHAM UNIVERSITY, PHYSICS DEPT. IT MUST NOT BE COPIED OR LENT WITHOUT THE CONSENT OF THE INSTRUMENTATION GROUP |
| DRAWN BY: | | G.D | |
| DATE: | | 21/4/93 | DRAWING No. |
| | | AF2\FPJ-15 | DRG. SIZE A3 |
| | | Quantity: 1 OFF | REV. B |

| | | | |
|--|----------|---------------|-------|
| ALL DIMENSIONS IN MM UNLESS OTHERWISE STATED | | | |
| IMPLIED TOLERANCES | | | |
| | | X (OVER 100) | ±0.20 |
| | | X (UP TO 100) | ±0.1 |
| | | X.X | ±0.10 |
| | | X.XX | ±0.05 |
| ISSUE | REVISION | DRN | DATE |

Material:
AL ALLOY
Quantity: 1 OFF

DO NOT SCALE

THIRD ANGLE PROJECTION



SECTION A-A

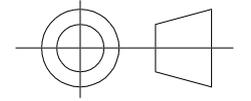
2 HOLE(S) DRILL 6.6

| | | | |
|-------------|----------|---|------------------------|
| DRG. TITLE: | | CLAMP RING | |
| SCALES: | 2:1 | ASTRONOMICAL INSTRUMENTATION GROUP DURHAM UNIVERSITY, PHYSICS DEPARTMENT SCIENCE LABS, SOUTH ROAD, DURHAM, DH1 3LE TEL. (091) 374 2107 & 2108 | |
| DRG. TYPE: | PARTS | THIS DRAWING IS THE PROPERTY OF THE ASTRONOMICAL INSTRUMENTATION GROUP, DURHAM UNIVERSITY, PHYSICS DEPT. IT MUST NOT BE COPIED OR LENT WITHOUT THE CONSENT OF THE INSTRUMENTATION GROUP | DRG. SIZE A3 |
| DRAWN BY: | G.D | | |
| DATE | 13/05/92 | DRAWING No. | REV. A |
| | | FPJ-15 | |

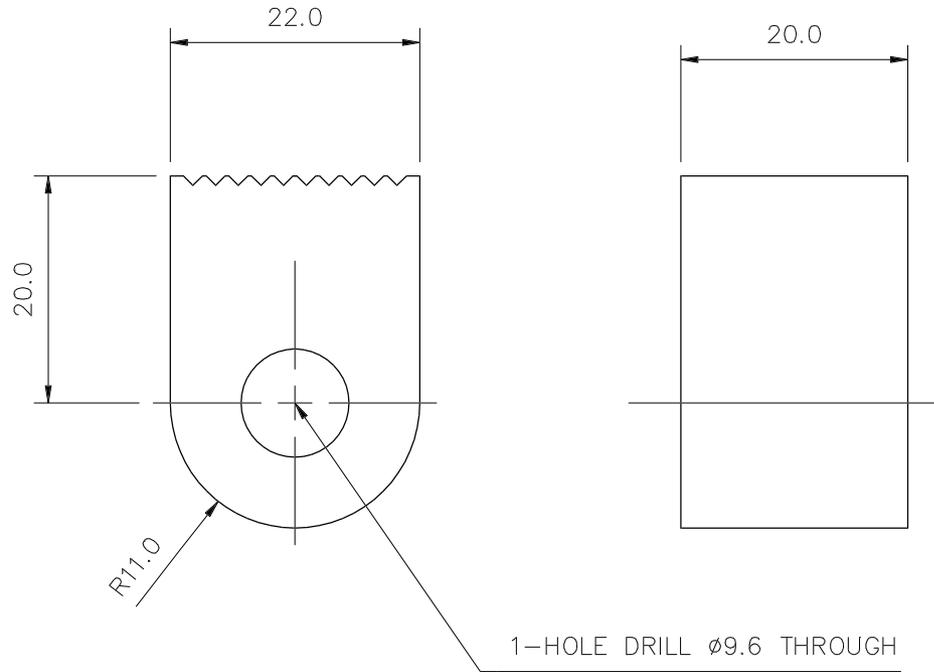
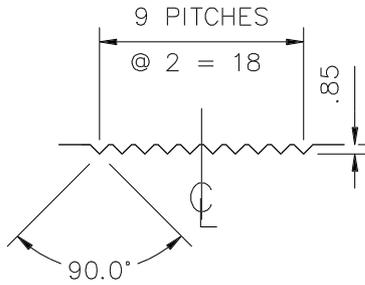
| | | | |
|--|--------------------|-----------------|------|
| ALL DIMENSIONS IN MM UNLESS OTHERWISE STATED | | | |
| IMPLIED TOLERANCES | | Material: | |
| | X (OVER 100) ±0.20 | AL ALLOY | |
| | X (UP TO 100) ±0.1 | Quantity: 1 OFF | |
| | X.X ±0.10 | | |
| | X.XX ±0.05 | | |
| ISSUE | REVISION | DRN | DATE |

DO NOT SCALE

THIRD ANGLE PROJECTION



DETAIL OF VEE GROOVES
(SCALE 2:1)

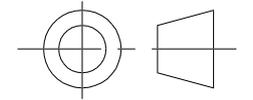


| | | | |
|-------------|----------|---|------------------------|
| DRG. TITLE: | | FIBRE SUPPORT BLOCK | |
| SCALES: | 2:1 | ASTRONOMICAL INSTRUMENTATION GROUP DURHAM UNIVERSITY, PHYSICS DEPARTMENT SCIENCE LABS, SOUTH ROAD, DURHAM, DH1 3LE TEL. (091) 374 2107 & 2108 | |
| DRG. TYPE: | PARTS | THIS DRAWING IS THE PROPERTY OF THE ASTRONOMICAL INSTRUMENTATION GROUP, DURHAM UNIVERSITY, PHYSICS DEPT. IT MUST NOT BE COPIED OR LENT WITHOUT THE CONSENT OF THE INSTRUMENTATION GROUP | DRG. SIZE A3 |
| DRAWN BY: | G.D | | |
| DATE | 18/05/92 | DRAWING No. FPJ-14 | |
| | | | REV. A |

| | | | | | |
|-------|----------|-----|------|--|---|
| | | | | ALL DIMENSIONS IN MM UNLESS OTHERWISE STATED | Material: AL ALLOY Quantity: 1 OFF |
| | | | | IMPLIED TOLERANCES | |
| | | | | X (OVER 100) ±0.20 | |
| | | | | X (UP TO 100) ±0.1 | |
| | | | | X.X ±0.10 | |
| ISSUE | REVISION | DRN | DATE | X.XX ±0.05 | |

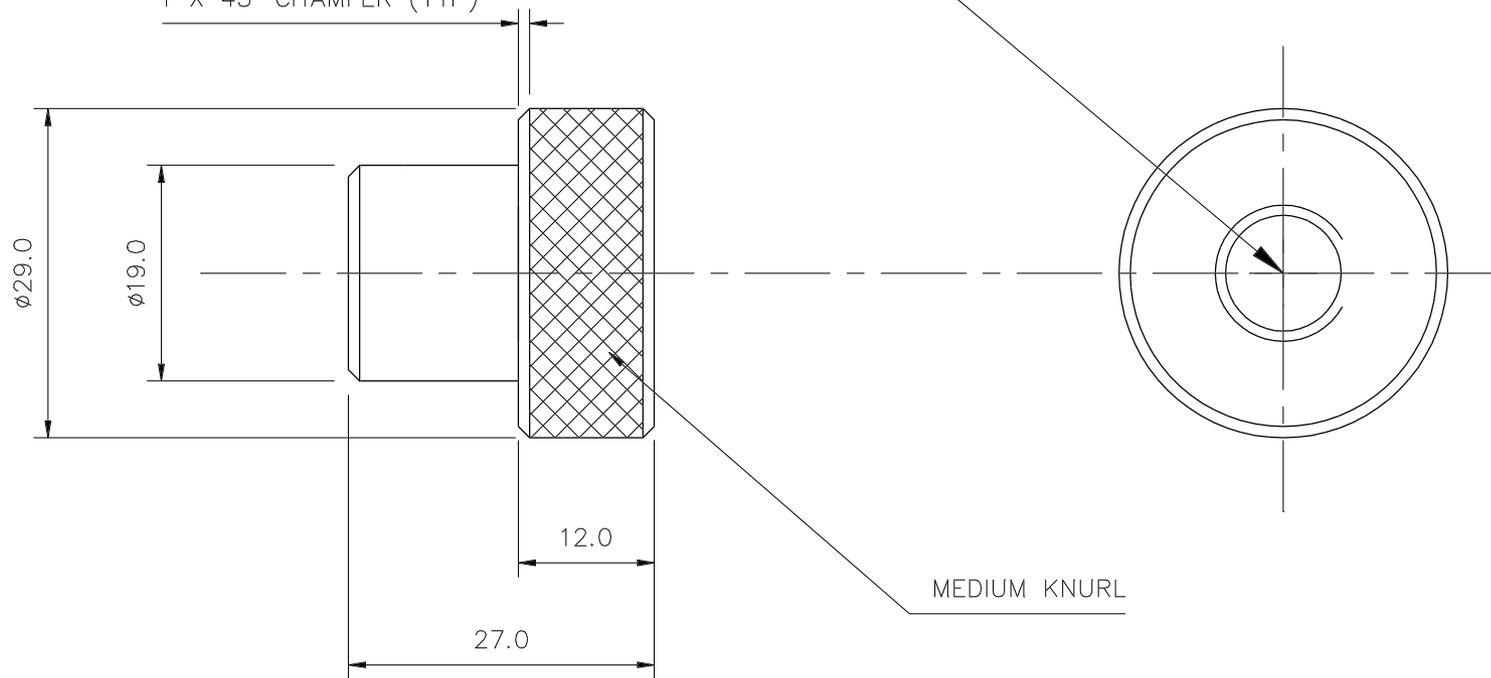
DO NOT SCALE

THIRD ANGLE PROJECTION



1 HOLE(S) DRILL 10.75 THROUGH
TAP M12.00 X 1.25 PITCH

1 X 45° CHAMFER (TYP)



MEDIUM KNURL

| | | | |
|-------------|---------|---|-----------|
| DRG. TITLE: | | NUT | |
| SCALES: | 2:1 | ASTRONOMICAL INSTRUMENTATION GROUP DURHAM UNIVERSITY, PHYSICS DEPARTMENT SCIENCE LABS, SOUTH ROAD, DURHAM, DH1 3LE TEL. (091) 374 2107 & 2108 | |
| DRG. TYPE: | PARTS | THIS DRAWING IS THE PROPERTY OF THE ASTRONOMICAL INSTRUMENTATION GROUP, DURHAM UNIVERSITY, PHYSICS DEPT. IT MUST NOT BE COPIED OR LENT WITHOUT THE CONSENT OF THE INSTRUMENTATION GROUP | DRG. SIZE |
| DRAWN BY: | G.D | | A3 |
| DATE | 5/05/92 | DRAWING No. | REV. |
| | | FPJ-12 | A |

ALL DIMENSIONS IN MM UNLESS OTHERWISE STATED

IMPLIED TOLERANCES
X (OVER 100) ±0.20
X (UP TO 100) ±0.1
X.X ±0.10
X.XX ±0.05

Material:

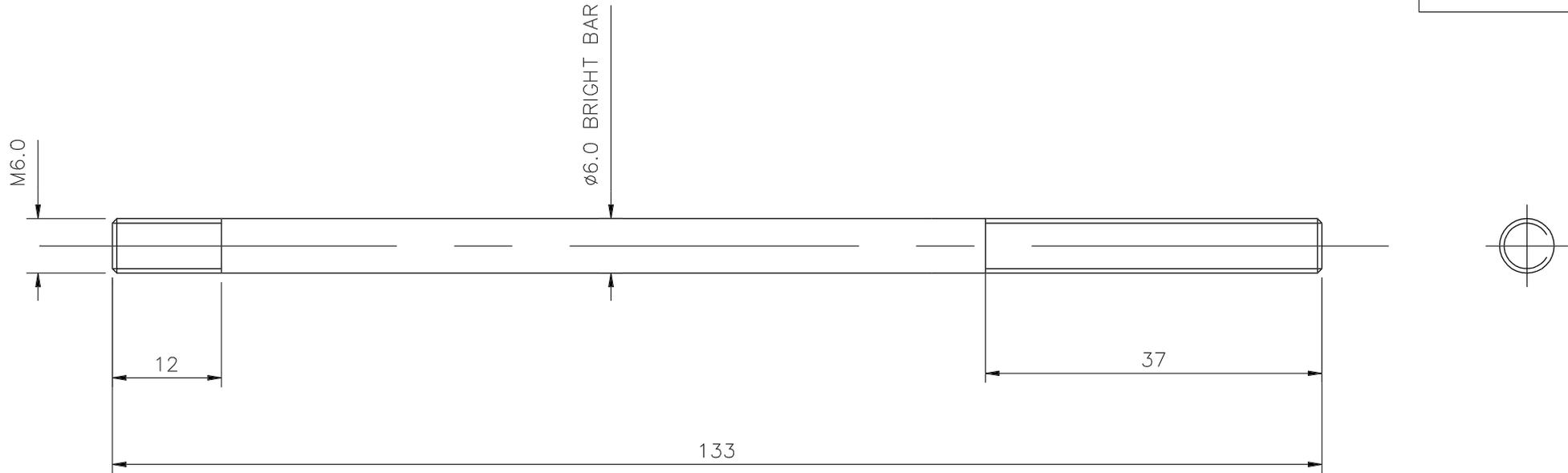
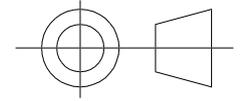
ST STEEL

Quantity: 1 OFF

| ISSUE | REVISION | DRN | DATE |
|-------|----------|-----|------|
| | | | |

DO NOT SCALE

THIRD ANGLE PROJECTION

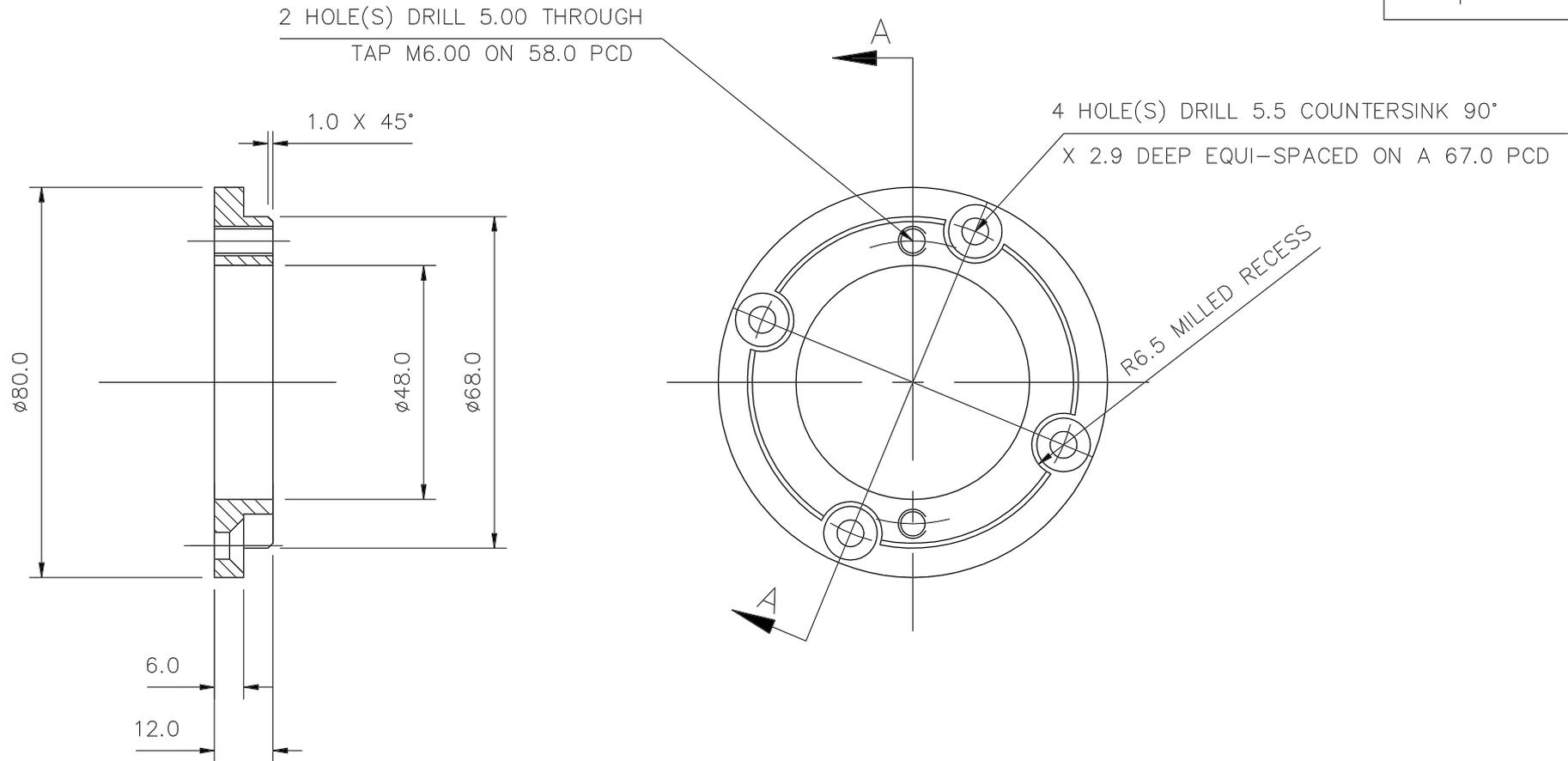
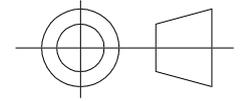


| | | | |
|-----------------|----------|---|-----------|
| DRG. TITLE: | | STUD | |
| SCALES: | 2:1 | ASTRONOMICAL INSTRUMENTATION GROUP DURHAM UNIVERSITY, PHYSICS DEPARTMENT SCIENCE LABS, SOUTH ROAD, DURHAM, DHI 3LE TEL. (091) 374 2107 & 2108 | |
| DRG. TYPE: | PARTS | THIS DRAWING IS THE PROPERTY OF THE ASTRONOMICAL INSTRUMENTATION GROUP, DURHAM UNIVERSITY, PHYSICS DEPT. IT MUST NOT BE COPIED OR LENT WITHOUT THE CONSENT OF THE INSTRUMENTATION GROUP | |
| DRAWN BY: | G.D | DRAWING No. | DRG. SIZE |
| DATE | 13/05/92 | FPJ-11 | A3 |
| Quantity: 2 OFF | | REV. | B |

| | | | |
|--|----------------------|-----------------|----------|
| ALL DIMENSIONS IN MM UNLESS OTHERWISE STATED | | | |
| IMPLIED TOLERANCES | | Material: | |
| X (OVER 100) ± 0.20 | | ST STEEL | |
| X (UP TO 100) ± 0.1 | | Quantity: 2 OFF | |
| X.X ± 0.10 | | | |
| X.XX ± 0.05 | | | |
| B | O/ALL LENGTH WAS 108 | GD | 18/04/94 |
| ISSUE | REVISION | DRN | DATE |

DO NOT SCALE

THIRD ANGLE PROJECTION



SECTION A-A

FINISH - MACHINE N7 ALL OVER

| | | | |
|-------------|--|---------------------|--|
| DRG. TITLE: | | REEL SUPPORT | |
| SCALES: | | 1:1 | ASTRONOMICAL INSTRUMENTATION GROUP DURHAM UNIVERSITY, PHYSICS DEPARTMENT SCIENCE LABS, SOUTH ROAD, DURHAM, DH1 3LE TEL. (091) 374 2107 & 2108 |
| DRG. TYPE: | | PARTS | |
| DRAWN BY: | | G.D | |
| DATE: | | 11/05/92 | |
| ISSUE | | REV.: | |
| REVISION | | A | |

| | | | |
|--|--|----------|--|
| ALL DIMENSIONS IN MM UNLESS OTHERWISE STATED | | | |
| IMPLIED TOLERANCES | | | |
| X (OVER 100) ±0.20 | | | |
| X (UP TO 100) ±0.1 | | | |
| X.X ±0.10 | | | |
| X.XX ±0.05 | | | |
| Material: | | AL ALLOY | |
| Quantity: | | 1 OFF | |

THIS DRAWING IS THE PROPERTY OF THE ASTRONOMICAL INSTRUMENTATION GROUP, DURHAM UNIVERSITY, PHYSICS DEPT. IT MUST NOT BE COPIED OR LENT WITHOUT THE CONSENT OF THE INSTRUMENTATION GROUP

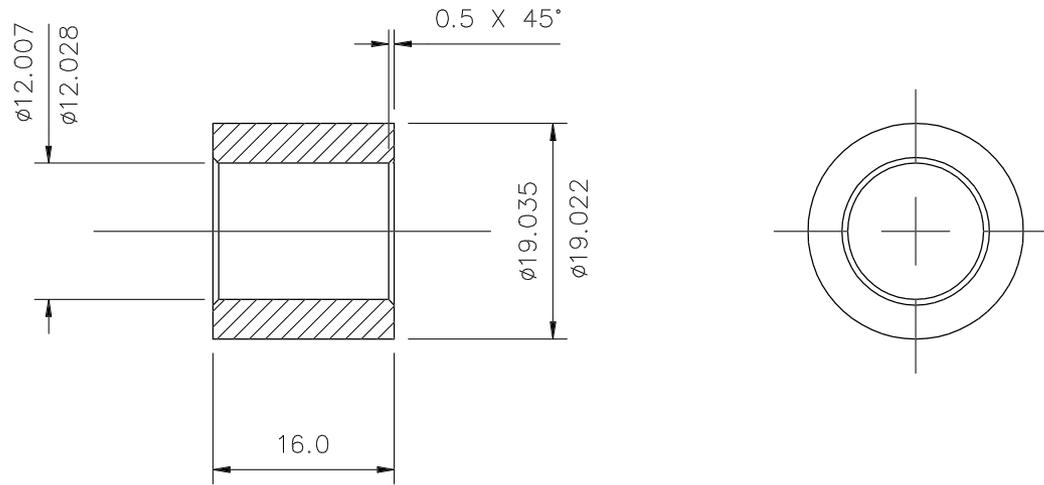
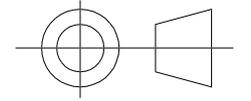
DRG. SIZE
A3

DRAWING No.

FPJ-10

DO NOT SCALE

THIRD ANGLE PROJECTION



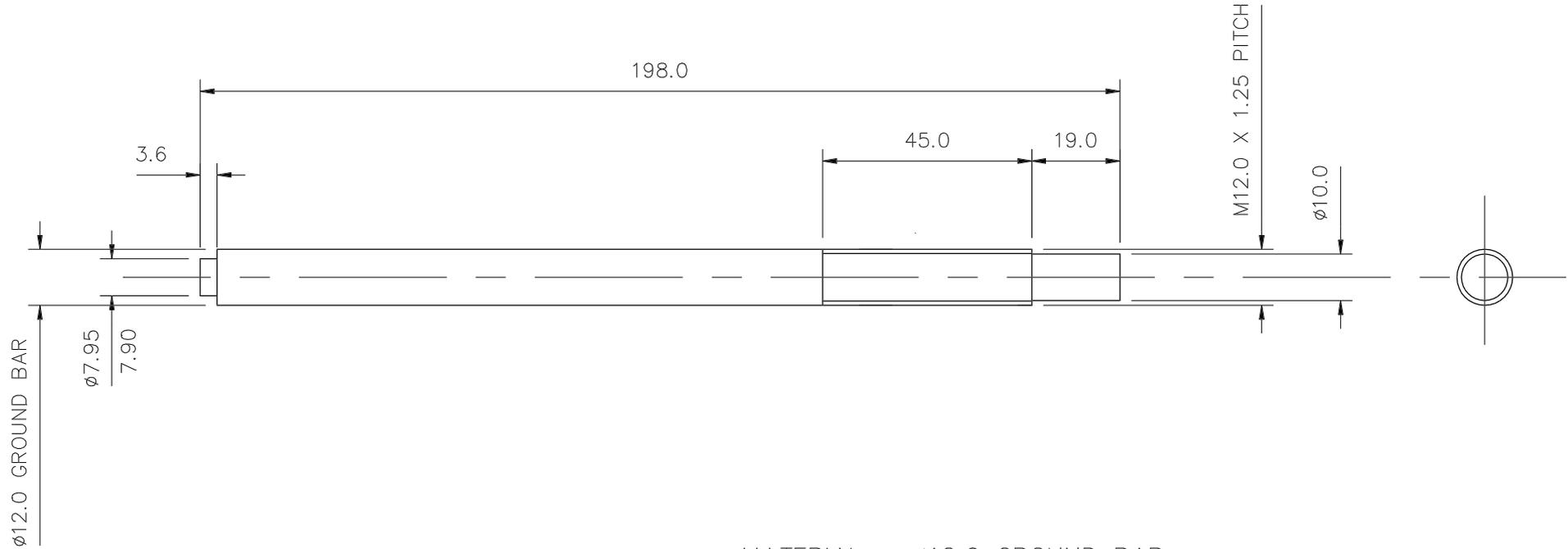
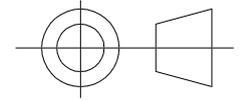
FINISH – MACHINE N7 ALL OVER

| | | | |
|-------------|---------|---|-----------------|
| DRG. TITLE: | | BUSH | |
| SCALES: | 2:1 | ASTRONOMICAL INSTRUMENTATION GROUP DURHAM UNIVERSITY, PHYSICS DEPARTMENT SCIENCE LABS, SOUTH ROAD, DURHAM, DH1 3LE TEL. (091) 374 2107 & 2108 | |
| DRG. TYPE: | PARTS | THIS DRAWING IS THE PROPERTY OF THE ASTRONOMICAL INSTRUMENTATION GROUP, DURHAM UNIVERSITY, PHYSICS DEPT. IT MUST NOT BE COPIED OR LENT WITHOUT THE CONSENT OF THE INSTRUMENTATION GROUP | DRG. SIZE A3 |
| DRAWN BY: | G.D | | DRAWING No. |
| DATE | 6/05/92 | 2DF\FPJ-09 | REV. A |

| | | | | | |
|-------|----------|-----|------|--|-----------------|
| ISSUE | REVISION | DRN | DATE | ALL DIMENSIONS IN MM UNLESS OTHERWISE STATED | Material: |
| | | | | IMPLIED TOLERANCES | OILITE |
| | | | | X (OVER 100) ±0.20 | Quantity: 2 OFF |
| | | | | X (UP TO 100) ±0.1 | |
| | | | | X.X ±0.10 | |
| | | | | X.XX ±0.05 | |

DO NOT SCALE

THIRD ANGLE PROJECTION



MATERIAL – $\phi 12.0$ GROUND BAR

| | | | |
|-------------|--|---------|---|
| DRG. TITLE: | | SHAFT | |
| SCALES: | | 1:1 | ASTRONOMICAL INSTRUMENTATION GROUP DURHAM UNIVERSITY, PHYSICS DEPARTMENT SCIENCE LABS, SOUTH ROAD, DURHAM, DHI 3LE TEL. (091) 374 2107 & 2108 |
| DRG. TYPE: | | PARTS | THIS DRAWING IS THE PROPERTY OF THE ASTRONOMICAL INSTRUMENTATION GROUP, DURHAM UNIVERSITY, PHYSICS DEPT. IT MUST NOT BE COPIED OR LENT WITHOUT THE CONSENT OF THE INSTRUMENTATION GROUP |
| DRAWN BY: | | G.D | |
| DATE: | | 5/05/92 | DRAWING No. |
| | | FPJ-08 | REV. A |

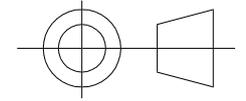
| | | | |
|--|----------|-----|------|
| ALL DIMENSIONS IN MM UNLESS OTHERWISE STATED | | | |
| IMPLIED TOLERANCES | | | |
| X (OVER 100) ± 0.20 | | | |
| X (UP TO 100) ± 0.1 | | | |
| X.X ± 0.10 | | | |
| X.XX ± 0.05 | | | |
| ISSUE | REVISION | DRN | DATE |

Material:
ST STEEL
Quantity: 1 OFF

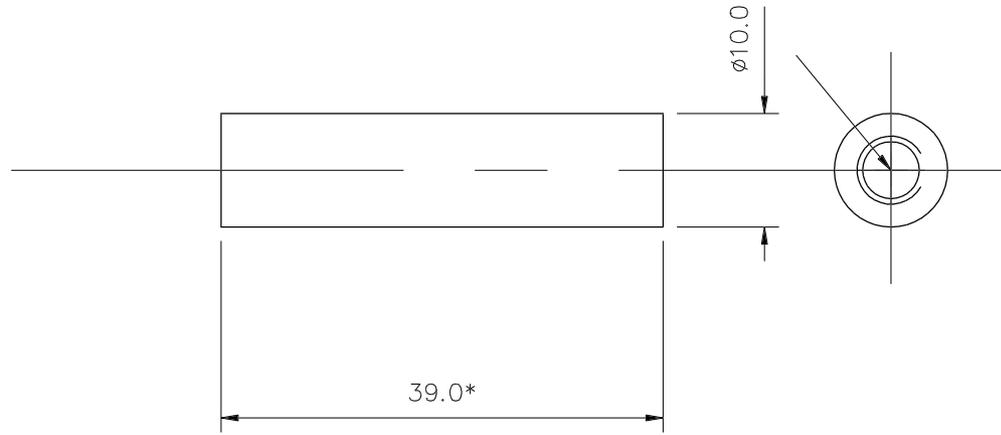
DRG. SIZE
A3

DO NOT SCALE

THIRD ANGLE PROJECTION



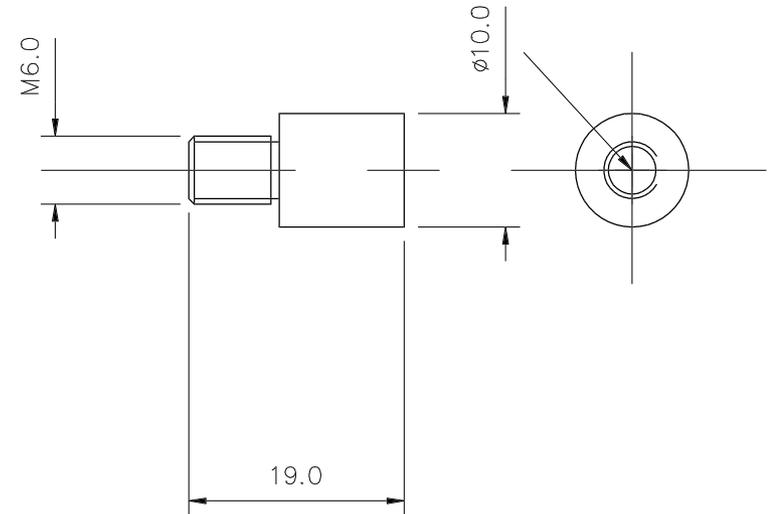
2 HOLE(S) DRILL 5.00 14.5 DEEP
TAP M6.00 12.0 DEEP



*IMPORTANT – THIS DIMENSION TO BE THE SAME ON ALL 4 ITEMS

SUPPORT
FPJ-06
QUANTITY – 4 OFF

1 HOLE(S) DRILL 4.20 10.0 DEEP
TAP M5.00 8.0 DEEP



SUPPORT
FPJ-07
QUANTITY – 4 OFF

| | | | |
|-------------|----------|--|-----------------|
| DRG. TITLE: | | SUPPORTS | |
| SCALES: | 2:1 | ASTRONOMICAL INSTRUMENTATION GROUP DURHAM UNIVERSITY, PHYSICS DEPARTMENT SCIENCE LABS, SOUTH ROAD, DURHAM, DH1 3LE TEL. (091) 374 2107 & 2108 | |
| DRG. TYPE: | PARTS | THIS DRAWING IS THE PROPERTY OF THE ASTRONOMICAL INSTRUMENTATION GROUP, DURHAM UNIVERSITY, PHYSICS DEPT. IT MUST NOT BE COPIED OR LENT WITHOUT THE CONSENT OF THE INSTRUMENTATION GROUP. | DRG. SIZE A3 |
| DRAWN BY: | G.D. | | |
| DATE | 30/04/92 | DRAWING No. | REV. |
| | | 2DF\FPJ-06 & 07 | A |

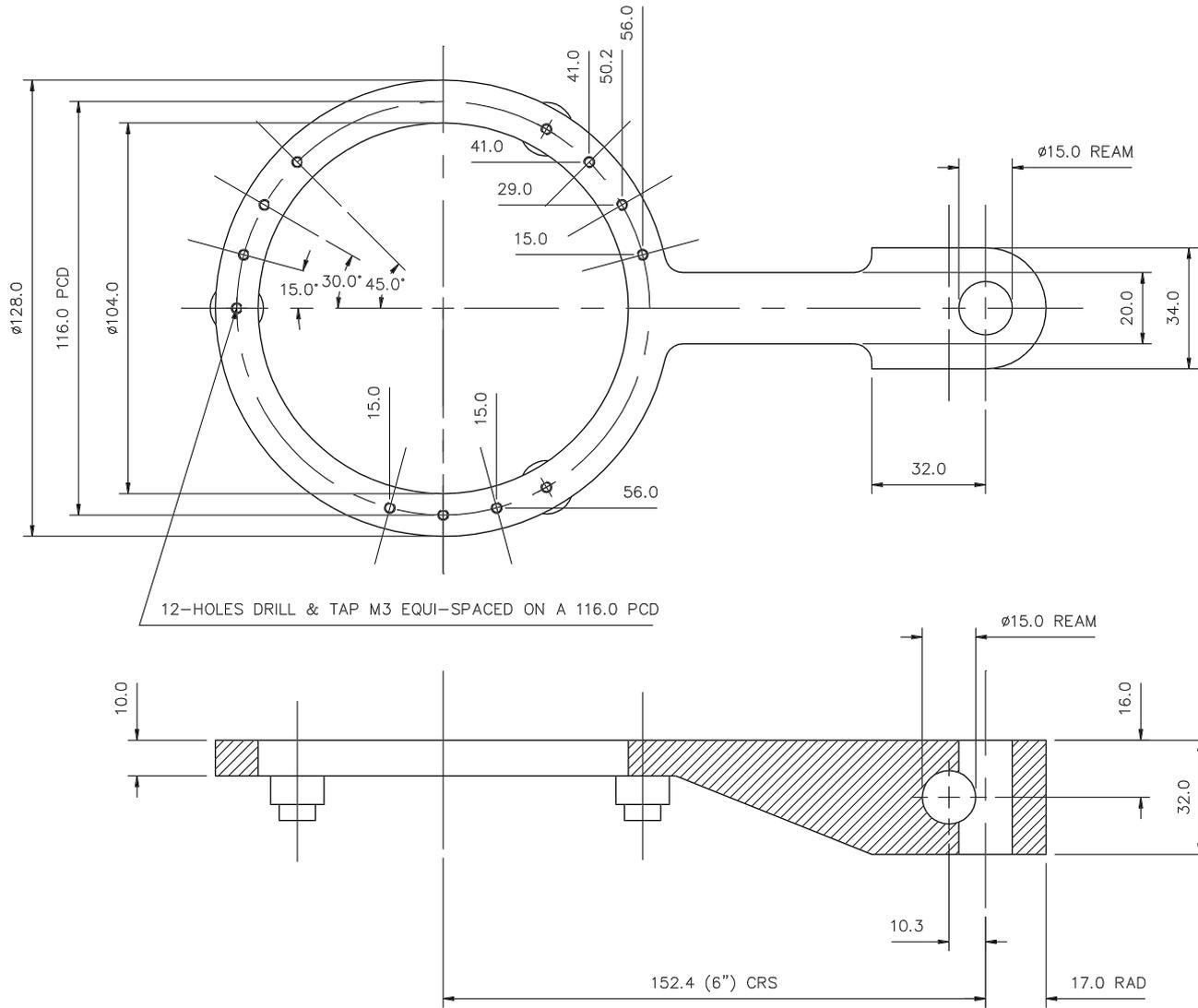
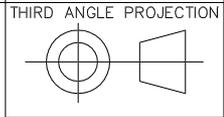
ALL DIMENSIONS IN MM UNLESS OTHERWISE STATED

IMPLIED TOLERANCES
X (OVER 100) ±0.20
X (UP TO 100) ±0.1
X.X ±0.10
X.XX ±0.05

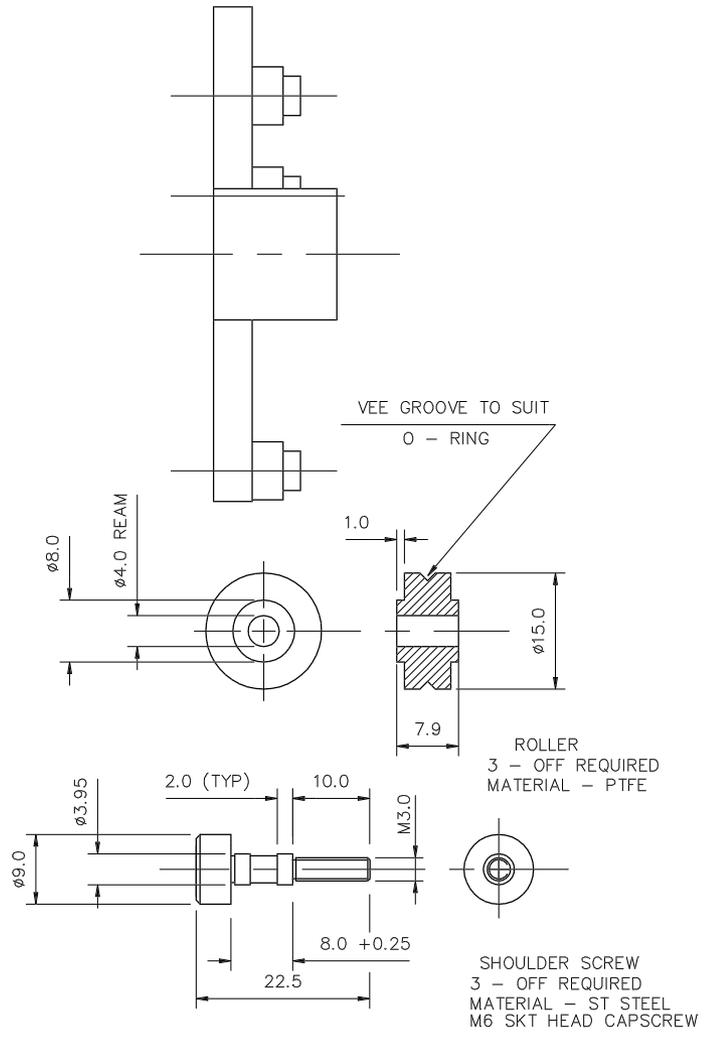
Material:
ST STEEL
Quantity: 4 OFF

| ISSUE | REVISION | DRN | DATE |
|-------|----------|-----|------|
| | | | |
| | | | |
| | | | |

DO NOT SCALE



12-HOLES DRILL & TAP M3 EQUI-SPACED ON A 116.0 PCD



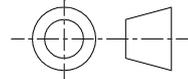
| | | | |
|-----------------|--|----------------------|--|
| DRG. TITLE: | | YOKE | |
| SCALES: | | 1:1 & 2:1 | ASTRONOMICAL INSTRUMENTATION GROUP DURHAM UNIVERSITY, PHYSICS DEPARTMENT SCIENCE LABS, SOUTH ROAD, DURHAM, DH1 3LE TEL. (091) 374 2107 & 2108 |
| DRG. TYPE: | | PARTS | |
| DRAWN BY: | | G.D | |
| DATE: | | 7/05/92 | |
| Quantity: 1 OFF | | DRAWING No. FPJ-YOKE | |
| | | REV. B | |

| | | | | | | | |
|-------|--|-----|---------|-------|----------|-----|------|
| ISSUE | REVISION | DRN | DATE | ISSUE | REVISION | DRN | DATE |
| B | 3-M3 HOLES ADDED, SHOULDER SCREWS AND ROLLERS MODIFIED | GD | 20/4/93 | | | | |

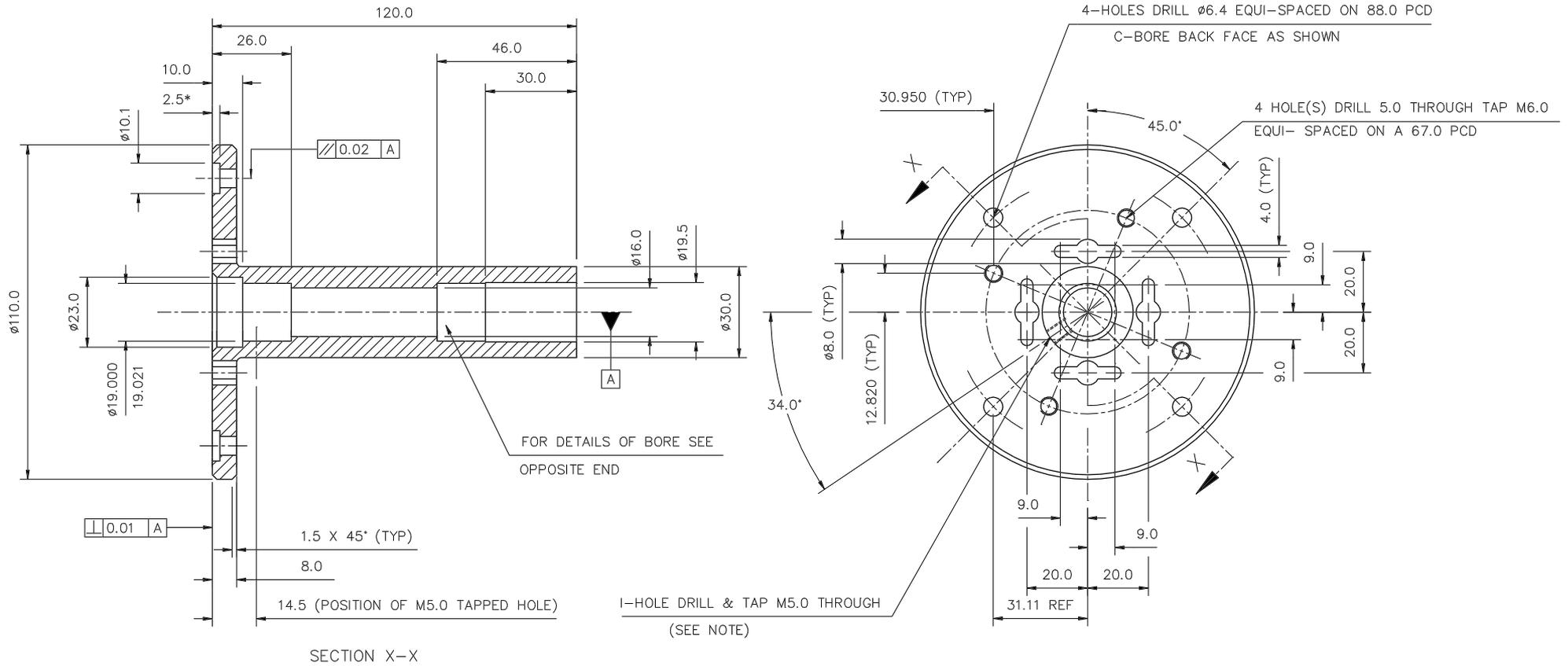
| | |
|--|----------|
| ALL DIMENSIONS IN MM UNLESS OTHERWISE STATED | |
| IMPLIED TOLERANCES | |
| X (OVER 100) | ±0.20 |
| X (UP TO 100) | ±0.1 |
| X.X | ±0.10 |
| X.XX | ±0.05 |
| Material: | AL ALLOY |
| Quantity: | 1 OFF |

DO NOT SCALE

THIRD ANGLE PROJECTION



* 4-COUNTERBORES TO BE OF EQUAL DEPTHS



NOTE - HOLE TO BE DRILLED & TAPPED WITH NYLON BUSH IN POSITION

FINISH - MACHINE N7 ALL OVER

| | | | |
|-------------|--|----------------|--|
| DRG. TITLE: | | BEARING SLEEVE | |
| SCALES: | | 1:1 | ASTRONOMICAL INSTRUMENTATION GROUP DURHAM UNIVERSITY, PHYSICS DEPARTMENT SCIENCE LABS, SOUTH ROAD, DURHAM, DH1 3LE TEL. (091) 374 2107 & 2108 |
| DRG. TYPE: | | PARTS | DRG. SIZE |
| DRAWN BY: | | G.D | A2 |
| DATE: | | 29/04/92 | DRAWING No. |
| | | FPJ-03 | REV. |
| | | | B |

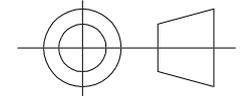
| ISSUE | REVISION | DRN | DATE | ISSUE | REVISION | DRN | DATE |
|-------|------------------------------|-----|---------|-------|----------|-----|------|
| B | 1 OFF M5.0 TAPPED HOLE ADDED | GD | 21/5/92 | | | | |

| | |
|--|------------|
| ALL DIMENSIONS IN MM UNLESS OTHERWISE STATED | |
| IMPLIED TOLERANCES | |
| X (OVER 100) | ± 0.20 |
| X (UP TO 100) | ± 0.1 |
| X.X | ± 0.10 |
| X.XX | ± 0.05 |

Material:
ST STEEL
Quantity: 1 OFF

DO NOT SCALE

THIRD ANGLE PROJECTION

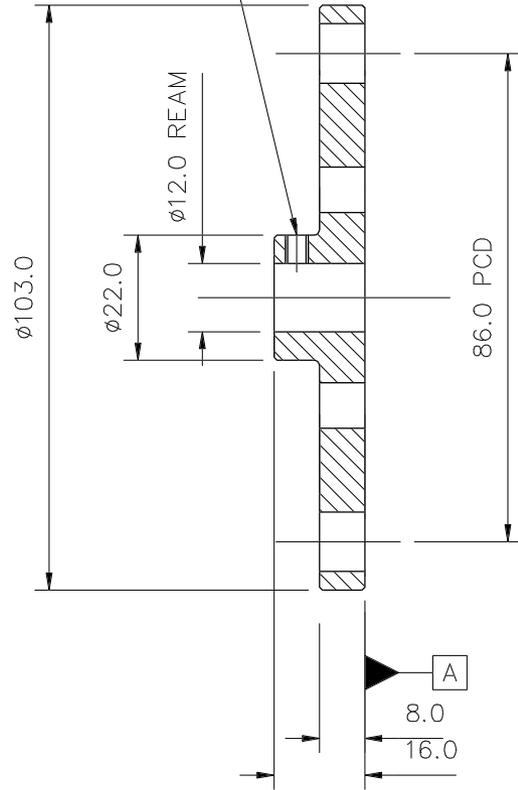


1-HOLE TAP M4.0

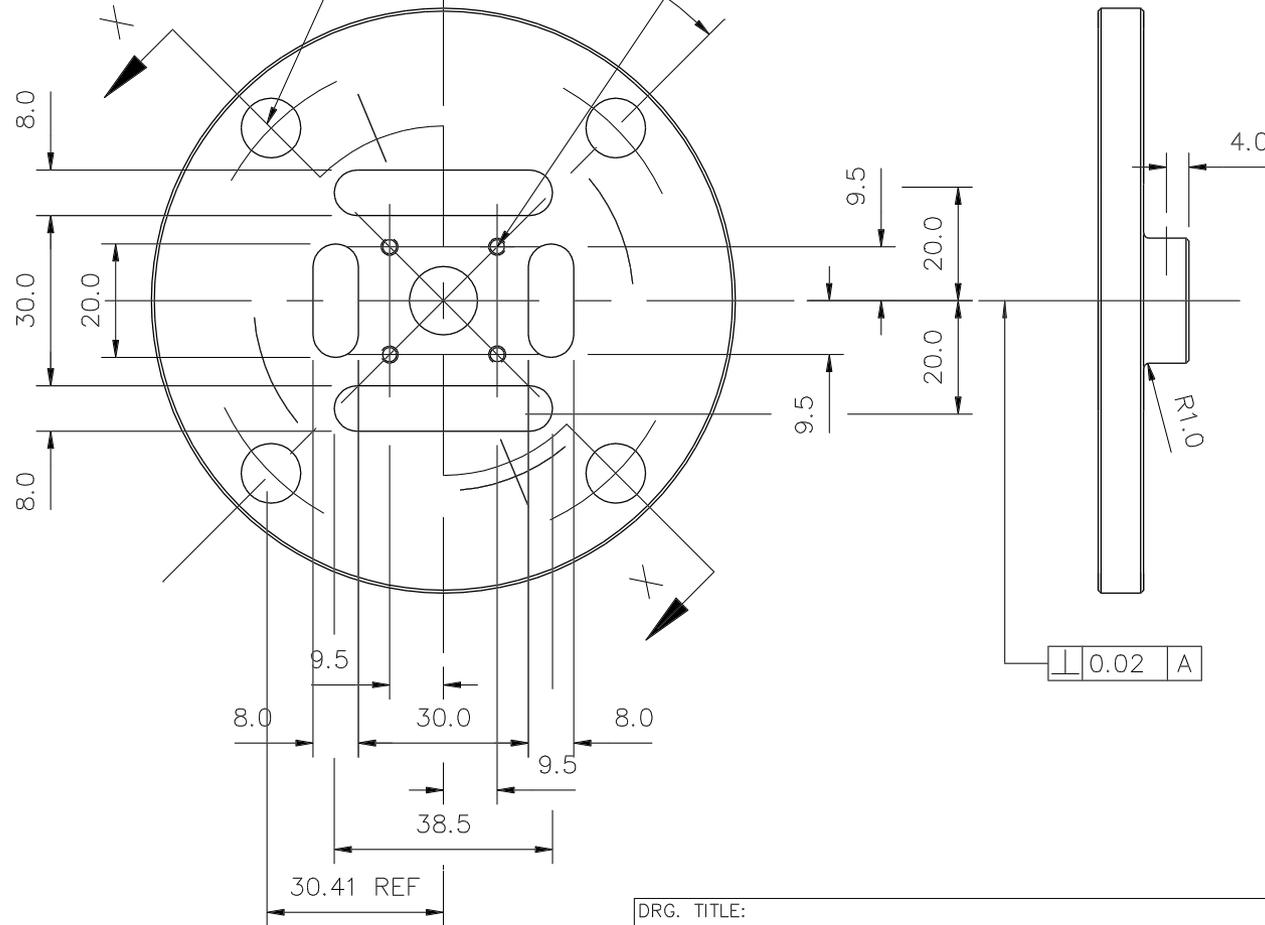
1.5 X 45° (TYP)

4-HOLES DRILL Ø10.5 EQUI-SPACED ON 86.0 PCD

4 HOLE(S) DRILL 2.50 7.3 DEEP
TAP M3.00 6.0 DEEP



SECTION X-X



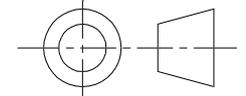
FINISH - MACHINE N7 ALL OVER

| | | | |
|-------------|--|-------------|---|
| DRG. TITLE: | | PLATE | |
| SCALES: | | 1:1 | ASTRONOMICAL INSTRUMENTATION GROUP DURHAM UNIVERSITY, PHYSICS DEPARTMENT SCIENCE LABS, SOUTH ROAD, DURHAM, DH1 3LE TEL. (091) 374 2107 & 2108 |
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| DRAWN BY: | | G.D | |
| DATE: | | 28/4/92 | DRAWING No. |
| | | 2DF\FPJ-02B | REV. A |

| | | | |
|--|----------|-----------------|------|
| ALL DIMENSIONS IN MM UNLESS OTHERWISE STATED | | | |
| IMPLIED TOLERANCES | | Material: | |
| X (OVER 100) ±0.20 | | ST STEEL | |
| X (UP TO 100) ±0.1 | | Quantity: 1 OFF | |
| X.X ±0.10 | | | |
| X.XX ±0.05 | | | |
| ISSUE | REVISION | DRN | DATE |

DO NOT SCALE

THIRD ANGLE PROJECTION



1-HOLE TAP M4.0

1.5 X 45° (TYP)

4-HOLES DRILL $\phi 10.5$ EQUI-SPACED ON 88.0 PCD

4 HOLE(S) DRILL 2.50 7.3 DEEP

TAP M3.00 6.0 DEEP

45.0°

4.0 (TYP)

9.5

20.0

9.5

20.0

9.5

9.5

20.0

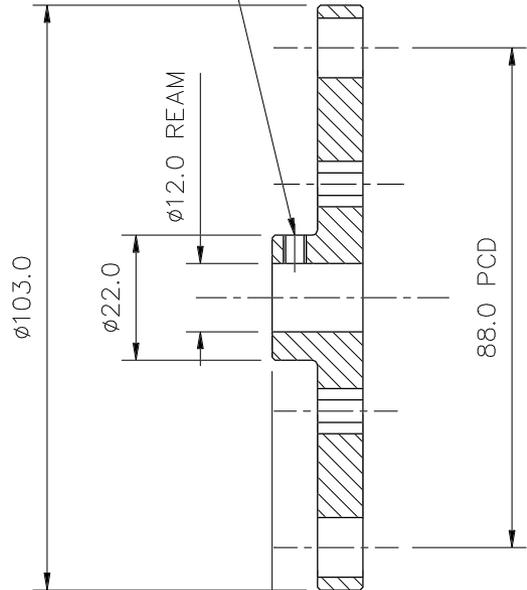
20.0

31.11 REF

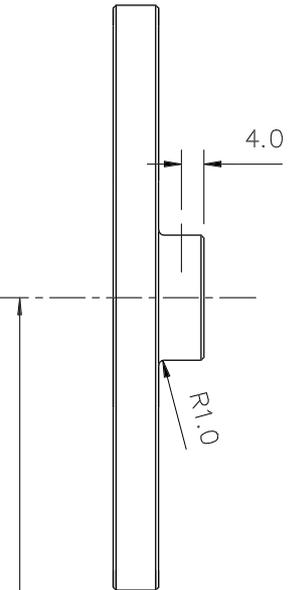
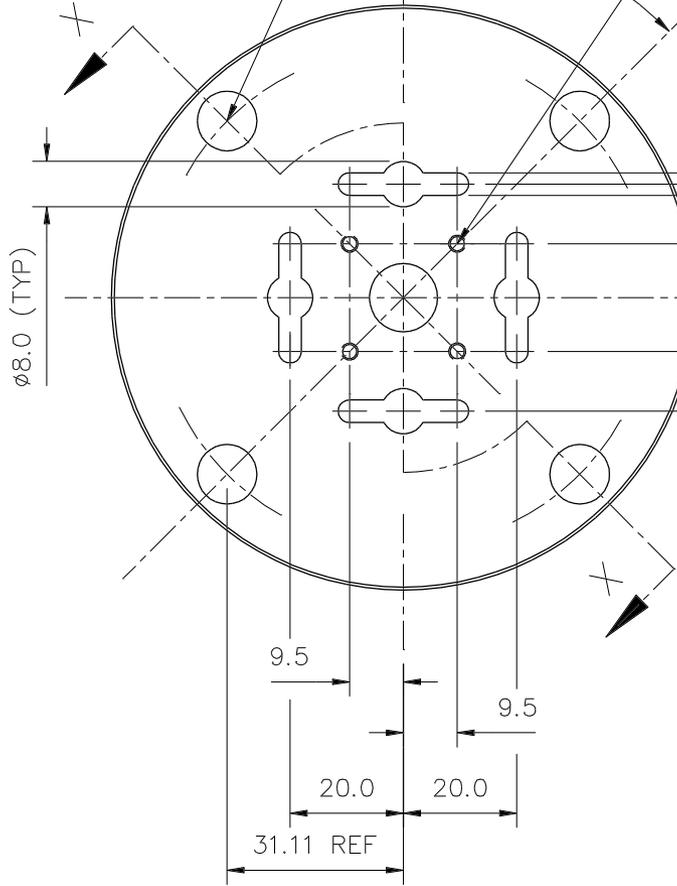
4.0

R1.0

0.02 A



SECTION X-X



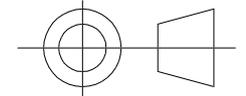
FINISH - MACHINE N7 ALL OVER

| | | | |
|-------------|--|---------|---|
| DRG. TITLE: | | PLATE | |
| SCALES: | | 1:1 | ASTRONOMICAL INSTRUMENTATION GROUP DURHAM UNIVERSITY, PHYSICS DEPARTMENT SCIENCE LABS, SOUTH ROAD, DURHAM, DH1 3LE TEL. (091) 374 2107 & 2108 |
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| DRAWN BY: | | G.D. | |
| DATE: | | 28/4/92 | DRAWING No. FPJ-02 |
| DRG. SIZE: | | A3 | REV. A |

| | | | |
|--|----------|-----------------|------|
| ALL DIMENSIONS IN MM UNLESS OTHERWISE STATED | | | |
| IMPLIED TOLERANCES | | Material: | |
| X (OVER 100) ± 0.20 | | ST STEEL | |
| X (UP TO 100) ± 0.1 | | Quantity: 1 OFF | |
| X.X ± 0.10 | | | |
| X.XX ± 0.05 | | | |
| ISSUE | REVISION | DRN | DATE |

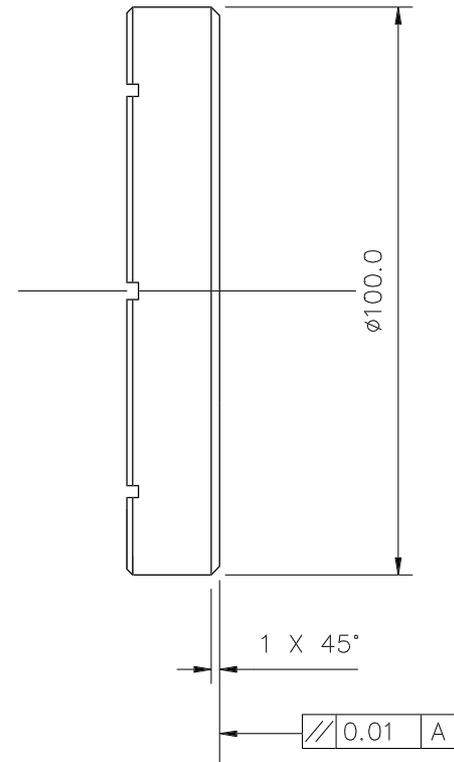
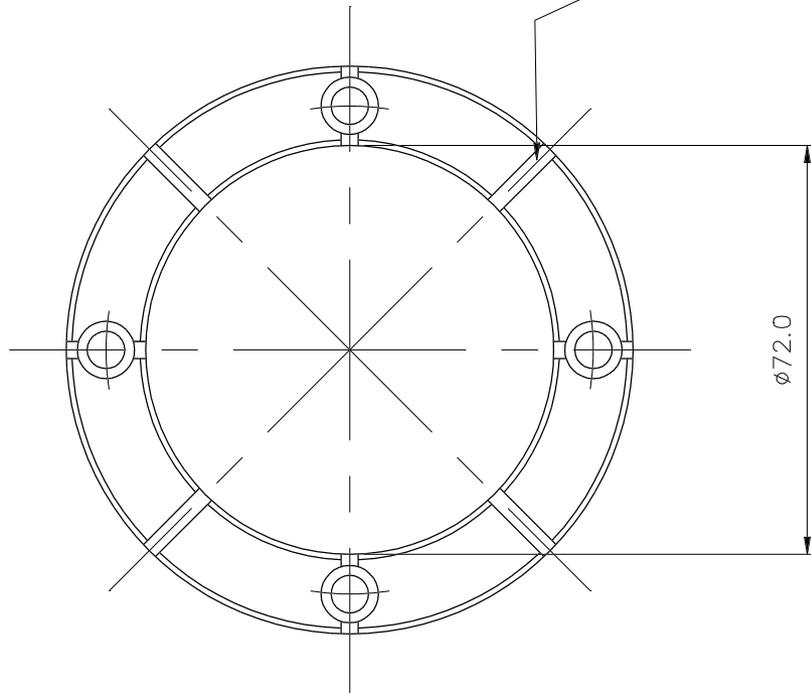
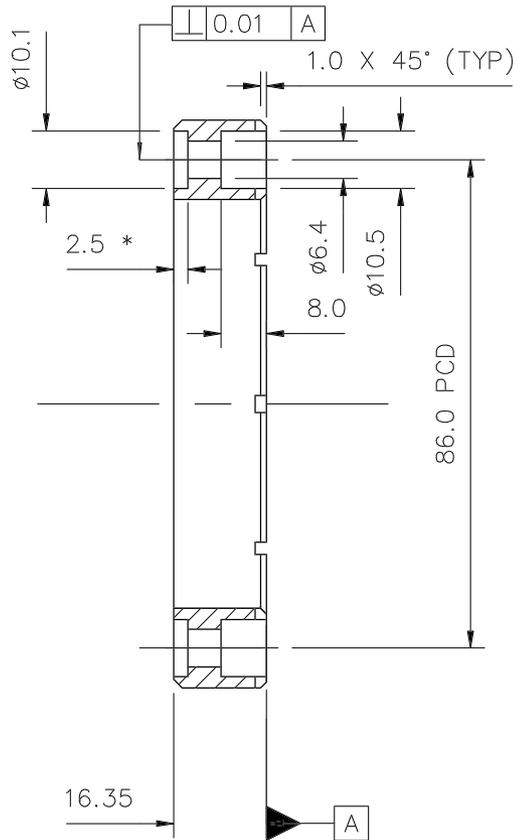
DO NOT SCALE

THIRD ANGLE PROJECTION



* 4 COUNTERBORES TO BE OF EQUAL DEPTH

8-EQUI-SPACED GROOVES
3 WIDE X 2 DEEP



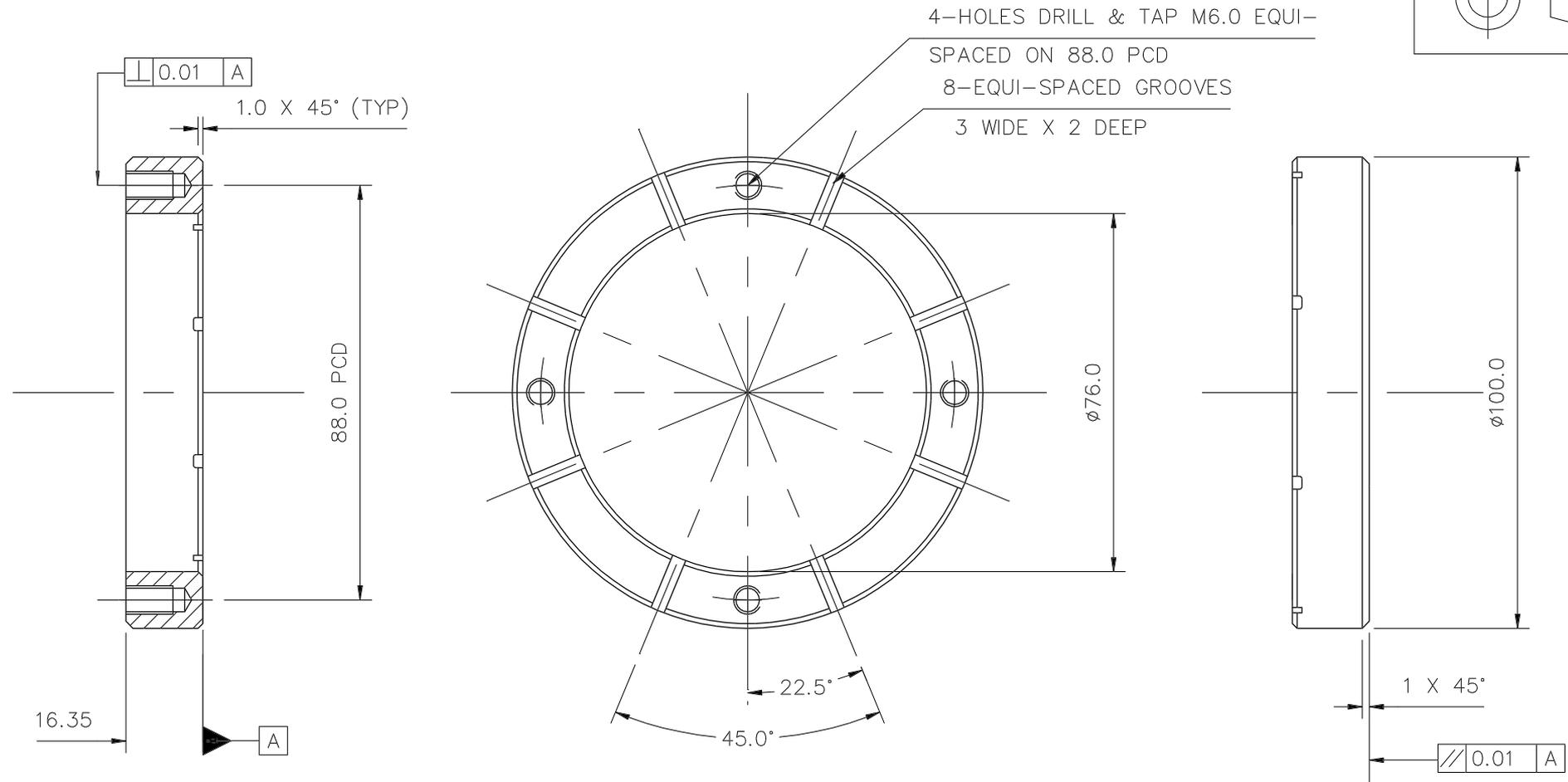
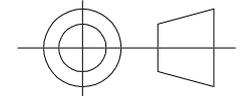
FINISH - MACHINE N7 ALL OVER

| | | | |
|-------------|--|---------------------|--|
| DRG. TITLE: | | SUPPORT RING | |
| SCALES: | | 1:1 | ASTRONOMICAL INSTRUMENTATION GROUP DURHAM UNIVERSITY, PHYSICS DEPARTMENT SCIENCE LABS, SOUTH ROAD, DURHAM, DHI 3LE TEL. (091) 374 2107 & 2108 |
| DRG. TYPE: | | PARTS | |
| DRAWN BY: | | G.D | THIS DRAWING IS THE PROPERTY OF THE ASTRONOMICAL INSTRUMENTATION GROUP, DURHAM UNIVERSITY, PHYSICS DEPT. IT MUST NOT BE COPIED OR LENT WITHOUT THE CONSENT OF THE INSTRUMENTATION GROUP. |
| DATE | | 5/11/93 | |
| | | 2DF\FPJ-01B | DRG. SIZE A3 REV. A |

| | | | |
|--|-------|-----------------|----------|
| ALL DIMENSIONS IN MM UNLESS OTHERWISE STATED | | | |
| IMPLIED TOLERANCES | | Material: | |
| X (OVER 100) ±0.20 | | ST STEEL | |
| X (UP TO 100) ±0.1 | | | |
| X.X ±0.10 | | | |
| X.XX ±0.05 | | | |
| Quantity: 1 OFF | ISSUE | REVISION | DRN DATE |

DO NOT SCALE

THIRD ANGLE PROJECTION



FINISH - MACHINE N7 ALL OVER

| | | | |
|-------------|--|---------------------|---|
| DRG. TITLE: | | SUPPORT RING | |
| SCALES: | | 1:1 | ASTRONOMICAL INSTRUMENTATION GROUP DURHAM UNIVERSITY, PHYSICS DEPARTMENT SCIENCE LABS, SOUTH ROAD, DURHAM, DHI 3LE TEL. (091) 374 2107 & 2108 |
| DRG. TYPE: | | PARTS | THIS DRAWING IS THE PROPERTY OF THE ASTRONOMICAL INSTRUMENTATION GROUP, DURHAM UNIVERSITY, PHYSICS DEPT. IT MUST NOT BE COPIED OR LENT WITHOUT THE CONSENT OF THE INSTRUMENTATION GROUP |
| DRAWN BY: | | G.D | |
| DATE | | 27/04/92 | DRAWING No. FPJ-01 |
| REV. | | B | DRG. SIZE A3 |

ALL DIMENSIONS IN MM UNLESS OTHERWISE STATED

IMPLIED TOLERANCES
X (OVER 100) ±0.20
X (UP TO 100) ±0.1
X.X ±0.10
X.XX ±0.05

Material:
ST STEEL
Quantity: 1 OFF

| | | | |
|-------|----------------------------|-----|---------|
| B | RING WAS TO BE GLASS FACED | GD | 20/1/93 |
| ISSUE | REVISION | DRN | DATE |